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I am submitting herewith a dissertation written by Michelle Epstein Garland entitled "An Exploration of the Relationships among Faculty Verbal Messages, College Student Identities, and Student Outcomes." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Communication and Information.

Michelle T. Violanti, Major Professor

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John W. Haas, Kenneth J. Levine, Schuyler W. Huck

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Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

An Exploration of the Relationships among Faculty Verbal Messages, College Student Identities, and Student Outcomes

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Michelle Epstein Garland
August 2015

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Dedication

This dissertation is dedicated to my amazing family and friends who have provided incredible emotional, psychological, and financial support along this doctoral studies journey. To my husband, Andrew, and our daughter, Alexandria (Alex), thank you for your incredible patience, support, and sacrifice as I attempted to balance wife, mother, teacher, and student responsibilities. To my parents, Annette Martin and Merv Epstein; my grandparents, Philip and Aretha Cantrell and William and Elaine Epstein; and my siblings Kirsten Dinkins and Adam Epstein, thank you for your unwavering encouragement, support, and love. I am so blessed and thankful to have all of you in my life. Completion of this degree would not have been possible without you!

To my friends Dr. Laura Miller, Jennifer Anders, and Raechel Eller, thank you for being my sounding board, my daughter's second moms, my sanity, and the best friends that I could ever ask for. To my friends, Dr. Rebecca Davis and Dr. Rick Curry, thank you for being my partners in crime as we battled through this process together. Finally, to my many UT kids, past and present, especially Cierra Burdick, Andraya Carter, Lauren McAllister, Lexi Dempsey, Lynley Voges, Kellie Sewell, Haley Parks, Dalton Saberhagen, Casey Reese, Caroline Jowers Pattat, and Lindsey Curtis Klein, thank you for being my inspiration for making a difference in students' lives. You are all my extended family, and I thank God for placing all of you in my life!

Acknowledgements

First and foremost, to my chair, Dr. Michelle Violanti, thank you for pushing, encouraging, and challenging me to be the best teacher and researcher that I can be. Throughout this doctoral journey, you have been my sounding board, my motivator, and my sanity. You go above and beyond what is asked of a teacher and mentor, and I am so blessed to have someone that I know will always have my back. You are not only my mentor and teacher but also an incredible friend, and I am so thankful for you. While my doctoral studies have come to an end, I know our friendship will continue with many more conference adventures, daughter play dates, and long lunches discussing anything and everything.

To Dr. John Haas, thank you for your guidance and mentorship throughout this journey. I would never have pursued a doctoral degree without your encouragement to do so. Thank you for believing in me and for allowing me to teach for the School of Communication Studies over the past decade, experience that served as the catalyst for this dissertation. Being a part of the Communication Studies family has been such a blessing, and I am forever grateful to you, Papa Smurf.

To Dr. Kenneth Levine, thank you for pushing my boundaries of research methods and for challenging my knowledge of research processes. Without these challenges, the development and testing of the scales in this dissertation would not have been possible. Thank you also for your willingness to collaborate with me in your research as it relates to educational assessment. I have learned so much from you in regards to research and mentorship and am thankful for the learning opportunities that you provided.

To Dr. Schuyler (Sky) Huck, thank you for your incredible positivity and encouragement. As much as I dreaded taking doctoral level statistics, you made the course enjoyable, and I am so

blessed to have gotten to know you over the course of my studies. Your willingness to serve as my outside committee member and your constant praise and support is appreciated more than you know. You are a fantastic example of what positive messages can lead students to achieve.

This dissertation would not have been possible without the incredible encouragement, guidance, and support of the best doctoral committee anyone could ever ask for. You each contributed to this doctoral journey in unique and important ways, and I am forever indebted to you all. Thank you, from the bottom of my heart, for everything!

Abstract

This project explores the interrelationships of college student identities, faculty verbal messages, and student outcomes (learner empowerment and learning indicators). To this aim, studies were completed to develop and test new measures, create and test models, and develop an adapted theoretical perspective for identity research. First, traditional approaches to identity in combination with Hecht's (1993) Communication Theory of Identity were explored and adapted as a basis for the creation of Interactional Theory of Identity (ITI). Second, two measures, College Student Identity scale and Faculty Verbal Messages scale, were developed and tested through factor analysis and revised. Third, the interrelationships between and among the variables as well as the proposed ITI models were tested and revised. This project contributes to research in three main ways. First, results suggest that college student identities are multiple and overlapping. Second, the study provides evidence for the need to examine, or re-examine, factor structures of existing instructional instruments. Third, study results suggest that learning outcomes may not be equivalent and instead may in fact build upon one another. Overall, this study demonstrates that the relationships among college student identities, instructor messages, and learning outcomes are more complex and varied than previously anticipated.

Keywords: *college student identity, faculty messages, outcomes, interactional theory of identity*

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Chapter 1: Introduction and Rationale

Academic success of college students is a phenomenon of interest for both theoretical and practical reasons. Colleges and universities around the country are increasingly concerned with proving the value of their programs to students, parents, and a variety of stakeholders; for this reason, research into assessment and evaluation in higher education has been the target of increasing interest (Allen, 2004; Baughin, Brod, & Page, 2002; Gallagher & Slater, 1994; Hernon, 2004; James, 2000; Palomba & Banta, 1999; Rice, Stewart, & Hujber, 2000; Schmitz &Whitworth, 2002; Seybert, 2002). Students, as the end user and therefore a key stakeholder in higher education, are central to explorations of success, making student-centered assessment a key tool in demonstrating an institution's value. Understanding the students who are being assessed is critically important. For example, how do students see themselves as college students, what impacts how students see themselves, and what outcomes result from such self-conceptualizations? An exploration into college student identity is needed. While a variety of assessment-related topics have been explored in the literature, including student assessment (e.g., Baughin, et al., 2002; Seybert, 2002), few, if any, studies have centered on student outcomes as they relate to identity.

Research in instructional communication is varied and extensive, but one common theme that emerges from such research is a focus on outcomes (e.g., Hernon, 2004; Seybert, 2002). To date, this focus on outcomes has been educational in nature, or centered on aspects of academic and student success (e.g., Goldman & Goodboy, 2014; Goodboy & Myers, 2008; Pascarella, 1980). This project seeks to expand the focus on instructional communication outcomes to include outcomes not directly related to academics. More specifically, this project seeks to explore outcomes as they relate to college student identity, in particular the behaviors that

accompany such identities. Instead of researching specific instructional techniques such as clarity or immediacy, this study looks at student identities as they relate to instructional outcomes. This research is different from research that explores student identities based on student demographic characteristics in relation to instructional outcomes as identities in this study are characterized by the essence of the student, or how the students see themselves.

Students are arguably the most important stakeholder in higher education, and while a myriad of factors in the educational framework influence the experience of college students, faculty serve as one of, if not the most, critical influences. However, "the number of student-centered faculty members whose primary commitment is to the instruction and to the welfare of undergraduate students is shrinking" (Kuh, Schuh, Whitt, & Associates, 1991, p. 176), which is a serious concern for student and institutional outcomes. This is attributed to new tenure-track faculty being pressured to focus specifically on research and publication while leaving teaching-related activities on the backburner.

Quality teaching has always been a critical factor in college student development because it "powerfully encourages the development of intellectual and interpersonal competence, identity, mature interpersonal relationships, purpose, and integrity" (Chickering, 1969, p. 370); student development positively impacts student achievement. Moreover, both rapport and student engagement are central to student achievement. Students become engaged when instructors teach by modeling interpersonal competence, which not only requires presentation of material, but also allows for student participation and feedback. As previous research notes, student participation and feedback are indictors of engagement, which impacts student achievement (Chickering, 1969; Chickering & Reisser, 1993). Taken together, an environment of instructional competence is created.

While instructional communication competence is comprised of a number of dimensions, the ability of an instructor to successfully express interpersonal messages is one dimension (Frisby & Martin, 2010). It is through such participation and feedback that teachers develop rapport and get to know the individual students at a deeper level. This deeper understanding of the student allows a competent teacher to work to meet the individual student's needs and expectations. An integral part of meeting those needs and expectations is the teacher's strategic use of messages. Thus, the purpose of this study is to examine the relationships among college student identities, faculty verbal messages, and student learning outcomes.

Identity

Research about identity, from both a theoretical and practical standpoint, has been extensive and interdisciplinary in nature. Two main issues arise when looking at the conceptualizations of identity. The first problem with identity is definitional uncertainty, which is not a recent development because identity has so many meanings that it means nothing (Lovejoy, 1978). The second problem with identity is location. In social science research, a distinction is sometimes made between the study of personal and social identities. In truth, this is a rather arbitrary distinction: identity is always both about ourselves and about how we are positioned in relation to the world (Erikson, 1950; Muir & Wetherall, 2010). However, generally speaking, identity is a multidimensional construct (Dollinger, 1995).

Much of the research approaches identity from one of three perspectives: the culture of a people, common identification of a group of people, or a self "composed of the meanings" attached to the many roles people play (Stryker & Burke, 2000, p. 284). For the purpose of this project, the third conceptualization has been adopted with specific emphasis on the student roles

and meanings those students attach to their roles based upon verbal messages their instructors use.

Theoretical Foundations

Research on identity is well established in psychology, social psychology, and sociology. A brief historical overview of the ways in which these disciplines have approached identity lays the groundwork for a communication perspective on identity. Moving from these theoretical approaches to the communication field introduces a communication theory of identity. While it is more firmly grounded in communication, many of its propositions do not necessarily require interaction to be created or reinforced. Thus, this section ends by introducing interactional theory of identity (ITI) as the study's framework.

Traditional approaches to identity. The most commonly taught theories of identity are those grounded in psychology and focus, based on the work of Erikson, on self and personal identity. Identity is not only gaining a sense of who we are, but also discovering who we are not (Erikson, 1964), an idea that reflects a process of knowing ourselves by what we share with others and in ways that we are distinct from others. This process of social comparison is present in everyday life as one reflects on the self by asking "How are we similar?" "How are we different?" and "How do I see myself in relation to other(s)?"

An extension of Erikson's notions of identity characterizes seven vectors of identity: developing competence, managing emotions, moving through autonomy to interdependence, developing mature interpersonal relationships, developing purpose, and developing integrity (Chickering, 1969). Developing competence, which stems from one's confidence in the ability to cope and succeed, refers to three types of competencies students develop in college: "intellectual competence, physical and manual skills, and interpersonal competence" (Chickering

and Reisser, 1993, p. 45). Intellectual and interpersonal competencies, specifically, are important to this study. Intellectual competence refers to acquiring knowledge and skills tied to academics, broadening an understanding and appreciation of various cultures and ideologies, and developing general cognitive skills. Interpersonal competencies are more central to communication behaviors as they include such skills as listening, self-disclosure, feedback, and group communication. The importance of competence in the communication discipline is well-established. At its core, communication competence is the belief that one knows how to communicate in a variety of contexts and is able to adapt, or choose between, strategies to most effectively communicate in any given context (Spitzberg & Cupach, 1984). Communication competence includes cognitive, affective, and behavioral domains (McCroskey, 1982) and centers on components that include knowledge, skill, and motivation (Spitzberg & Cupach, 1984).

Managing emotions is the second of Chickering's vectors, and as would be expected, depends upon awareness of one's emotions.

> Using Koestler's metaphor, awareness of emotions includes (1) becoming more aware of the full range of feelings and gaining skill at differentiating between the various emotions; (2) becoming more adept at gauging the intensity of feeling, the 'pressure in the tap'; and (3) understanding whether the feelings are toxic or nurturing, self-protective or self-transcending. (Chickering & Reisser, 1993, p. 88)

Such emotions are often communicated verbally and nonverbally.

Moving through autonomy toward interdependence is vector three. Transitioning from high school to college allows for such a process to take place as students often leave home to live alone for the first time and learn to manage their own time and money. Moreover, it is at this

time that students begin figuring out who they are as individuals, set their own personal goals, and establish their own personal priorities. Such independence is both emotional, as a continuation of vector two, and instrumental, which centers on adaptability and being self-sufficient. In this move toward being an independent adult, students begin to take control of their lives, while moving toward interdependence, which is considered the "capstone of autonomy" (Chickering & Reisser, 1993, p. 140). It is in this state of interdependence that students see themselves as part of a larger whole, which is a direct reflection of this study's foundational proposition that college student identity, a label used to encompass the spectrum of identities that students possess, is interactional in nature and dependent upon a balance of autonomy and connection, as is vector four.

Vector four, developing mature interpersonal relationships, focuses on connections and relationships that impact students' lives. Appreciating differences and being able to become intimate are important components of these mature interpersonal relationships (Chickering & Reisser, 1996). This vector has become increasingly important in the higher education context given the rise of international and multicultural communities within institutional settings due to study abroad. While intercultural communication competence has been encouraged due to globalization, developing mature interpersonal relationships (among students, between students and faculty, between students and the vast array of potential relationships encountered during their higher education experience) cannot be disregarded.

Establishing identity, vector five, addresses issues ranging from appearance and health to sexual identity. Such issues appear to be only a small part of a college student's identity. For the purposes of this study, a broader view of establishing identity centered on a sense of self in relation to society, culture, and feedback from valued others has been adopted. In relating to

society and culture, the importance of roles comes into play, and for this study specifically, the behaviors that result from the roles adopted by students. Moreover, the role of feedback in establishing a sense of self centers on students' communication behaviors in relation to faculty and peers.

Vector six, developing purpose, "entails an increasing ability to be intentional, to assess interests and options, to clarify goals, to make plans, and to persist despite obstacles" (Chickering & Reisser, 1996, p. 209). For students, developing purpose reflects the process of figuring out what they enjoy, what they are good at, and what they want to do personally and professionally in the future. Developing integrity, vector seven, "involves reviewing personal values in an inquiring environment that emphasizes diversity, critical thinking, the use of evidence, and experimentation" (Chickering & Reisser, 1996, p. 235). Students begin to observe those around them and attempt to make connections between values and behavior.

These vectors are important to this study as the disequilibrium in identity results in behaviors that can be categorized based on the vectors. Chickering posited that establishing identity was dependent upon the first three vectors:

> development of identity involves: (1) comfort with body and appearance, (2) comfort with gender and sexual orientation, (3) sense of self in a social, historical, and cultural context, (4) clarification of self-concept through roles and life-style, (5) sense of self in response to feedback from valued others, (6) self acceptance and self-esteem, and (7) personal stability and integration. (Chickering & Reisser, 1993, p. 49)

This study, instead, suggests that identity continues to be established along all seven vectors. Moreover, each of the seven vectors can be seen in the college environment as students work to

establish themselves outside of the family unit that has been core to their identity up until they "leave the nest" for college.

Within the psychological perspective is the construct of academic self-concept, which has been examined from the social-scientific perspective common within a psychological approach. "Academic self-concept refers to students' perceptions of their academic competence (including interests and enjoyment in what they learn) or more generally students' perceptions about themselves in achievement situations" (Bluic, Ellis, Goodyear, & Hendres, 2011, p. 564). In comparison, self-esteem is the value an individual places upon oneself based upon a standard of how one should be versus how one is. Self-esteem is a bidirectional relationship, which is important to this study because of potential outcomes (Heppner & Kernis, 2011). For example, if students who view themselves as smart earn a failing grade on an assignment, their identity as good students and self-esteem are negatively impacted.

The concept of self, particularly in regards to self-concept and self-esteem, arises in identity research, with self being described as "a set of stable self-meanings giving relative stability to personality, continuity to interaction, and predictability to behavior" (Serpe & Stryker, 2011, p. 33). Moreover, three self-motives are central to the study of identity—accuracy of identity, valence of identity, and consistency of identity—with direction toward or away from a specific identity accounted for within each self-motive (Gregg, Sedikides, & Gebauer, 2011). Accuracy of identity refers to a self-assessment process in which one prefers a true self-construal over a false self-construal; valence of identity refers to a self-enhancement process in which one prefers positive self-construals over negative ones; and consistency of identity refers to a self-verification process in which one prefers common, well-known self-construals to unique self-

construals (Gregg, Sedikides, & Gebauer, 2011). Accuracy, valence, and consistency are due in large part to the messages received in communicative interactions.

Stets and Burke (2000) outlined the connections between identity theory and social identity theory, two of which are central to this study. First, identity theory is based on roles, while social identity theory is based on categories. Second, for social identity theory, identity is grounded in the process of activation; for identity theory, the probability of activation, based on salience, is central to understanding identity. Salience of identity refers to the prominence of identity, and given that identity is a conglomeration of dimensions, or various identities, some dimensions or identities are more prominent than others based on interactions with others. Various identities or dimensions, depending on the perspective taken, come to the forefront as interactions take place.

As the discussion moves to an interactive view of identity, it is important to note that both identity theory and social identity theory see self as reflexive. While studies of identity from the psychological perspective are varied and extensive, other well-known explorations of identity are found in the sociological perspective. In his seminal article, Stryker claimed his hypotheses strengthen the predictive power of identity theory because they "can account for the position of given identities in the salience hierarchy" and "tie identity salience to role performance" (1968, p. 561). Within this study, the role of the college student is examined by exploring various identities that create what it means to be college students and the identities that underlie such meanings.

Within the instructional realm, a sociological approach has explored forming identities in college (Kaufman & Feldman, 2004). Their findings bring to light some of the negative affect the college experience has on identity, such as feeling intellectually deficient, and also highlight

the variability of college experiences. The variability, they say, is both among the individuals themselves as well as the institutions they attend, meaning the identities formed are dependent upon the persons involved in the interaction as well as the environment in which the interaction takes place.

Identity change, though continuous, is gradual (Burke & Stets, 2009). Identities change because of situational changes, conflicts among multiple identities, and conflicts between identities and behaviors (Burke, 2006). Behavior expresses identities, usually through interaction with others, and this is the space where identity and social identity theories meet (Stryker & Burke, 2000). With emphasis on interaction, the role of communication in identity comes to the forefront.

Communication approaches to identity. This interplay between the psychological and sociological levels of communication is explored in the communication theory of identity (Hecht, 1993). Communication is the enactment of identity in that "identity is formed, maintained, and modified in a communicative process ... [and] in turn, is acted out and exchanged in communication. Thus, communication externalizes identity" (Hecht, Warren, Jung, & Krieger, 2005, p. 262). People understand the social world through schema, a process resulting in multiple loci of identity, meaning that identity is not singular but instead a conglomeration housed in psychological and sociological processes. Based on the foundational assumption of multiple loci of identity, Hecht (1993) posits four layers of identity: personal, enacted, relational, and communal.

The personal layer of identity refers to the loci of identity as the individual. This layer emphasizes individuals' definitions of self generically as well as in particular contexts (Hecht, Collier, & Ribeau, 1993). The enactment layer of identity places the locus of identity within the

communicative performances and messages individuals use. Third, the relational layer of identity places the locus of identity as the connections among people with identities being constituted in reference to other people through social interactions. Finally, the communal layer of identity places the loci of identity in a group through which members share similar characteristics and have shared memories. These layers are viewed as "interpenetrated," incapable of existing independently of each other even though some layers may at times be more prominent than others.

Dialectical tension between layers is also recognized as individuals struggle to make sense of their identity. Moreover, identity gaps may exist between and among layers. For example, the personal-relational identity gap refers to the incongruity between the individual's perception of oneself and the individual's perception of how one is viewed by others. Hecht posits eight dialectical foundational assumptions of Communication Theory of Identity.

1. Identities have individual, social, and communal properties.
2. Identities are both enduring and changing.
3. Identities are affective, cognitive, behavioral, and spiritual.
4. Identities have both content and relationship levels of interpretation.
5. Identities involve both subjective and ascribed meaning.
6. Identities are codes that are expressed in conversations and define membership in communities.
7. Identities have semantic properties that are expressed in core symbols, meanings, and labels.
8. Identities prescribe modes of appropriate and effective communication. (1993, p. 79)

Beyond the eight foundational assumptions, Hecht (1993) presents an additional ten assumptions broken into the categorical layers of identity: personal (three), enactment (three), relationship (three), and communal (one).

Hecht focuses on identity from a group perspective. This is problematic for the current project as the focus is on the conception of identity as a function of self. To bridge the gap, the work of William James is explored as his work has also influenced the connection between communication and identity (Comello, 2009). While James identified four elements of self, the element central to studies of communication is the social self, which is described as the way individuals conceptualize their self by recognition received from others. Moreover, the social self is not a single self, but instead multiple selves based upon the multiple recognitions. This social self is closely tied to Hecht's relational layer because both rely on a person's social relationships. Communication is central to these conceptions of identity because "exposure to messages…could temporarily increase the accessibility of a particular self-view, which could then influence behavior" (Comello, 2009, p. 343). For example, if a teacher says to a student, "You did a great job on this assignment," the student's view of self as a successful student is highlighted and could motivate the student to continue to behave in ways that the self-view of a successful student is maintained. While Hecht moves in the direction of an interactional component to identity, he neglects to make interaction the focus.

Interactional Theory of Identity (ITI). Identity, as studied here, is founded on the concept of self as outlined in symbolic interactionism (Blumer, 1980; Mead, 1934). More specifically, this study centers on the assumption that "self is defined and developed in interaction, a product of a looking glass process involving impressions of how we appear to others, impressions of others' assessments of us, and our feelings of pride or shame deriving

from these imaginations" (Serpe & Stryker, 2011, p. 227). Identity Theory is closely associated with symbolic interactionism in that society impacts self, which impacts behavior, with self being defined as including affective, conative, and cognitive aspects (Stryker, 2008). People have distinct self-concepts, or role identities, for each of the roles occupied within society. That is, at its core, identity is how people characterize themselves according to roles and internalize meanings and expectations associated with those role performances (Burke & Tully, 1997; Thoits, 1986), which then guide behavior (Burke, 1991; Burke & Reitzes, 1981). The concept of roles has been a central concern of identity studies. These studies explore the function of roles in personal, group, and social identities as well as explore similarities and differences in obligatory and voluntary role identities (e.g., Thoits, 2003). Central to this notion of behaviors and roles is the interaction and negotiation processes that accompany role performance.

Interactional Theory of Identity (ITI), which adapts and extends conceptions of identity based on Identity Theory, Social Identity Theory, and Communication Theory of Identity, proposes that communication interactions are central both to identity development as well as one's resulting behaviors. People come into their interactions with an identity that is impacted by the specific messages exchanged between or among the participants. Theoretically, these messages can confirm/strengthen, neutralize, or disconfirm one's current identity view and lead to specific relational outcomes because identity is co-created through our interactions with others (Jung & Hecht, 2004). Language is not merely representational; it creates realities and identities while also being constitutive (Johnston, 2004). Moreover, language positions people in relation to one another (Davies & Harre, 1999; van Langenhove & Harre, 1999) and therefore impacts the way people think about themselves in relation to others. In terms of communication, tensions

between the intrapersonal messages of the students and the interpersonal messages exchanged with faculty are of interest in this study.

The interactional nature of the student-teacher relationship is well-established. For example, an information processing approach views "student-teacher behavior as an interactive process in which both teacher and student(s) act and react verbally with one another as they attempt to communicate" (Miller & Hylton, 1974, p. 146). However, the connection between interaction and identity has been largely ignored in such research.

Hogg, Terry, and White (1995, p. 257), describe how a student-teacher interaction could lead a student to enter a stage of identity crisis.

> Distress may arise if feedback from others – in the form of reflected appraisals or perceptions of the self suggested by others' behavior – is perceived to be incongruent with one's identity.

The connections to Identity Theory, Social Identity Theory, and Communication Theory of Identity are apparent. Aligning with Comello (2009), faculty messages used to communicate with students impact views of self and identity, which results in particular behaviors. While Hecht et al., (2005) represent identity as singular, this conceptualization represents identity as multidimensional and fluid. Through the communication process, multiple identities are created, sustained, and altered. This view of identity is additionally a departure from typical conceptions of identity, which view a single identity as multidimensional. Instead, identities are themselves separate, though interrelated. Dimensions of identity cannot be understood except in relation to each other (Jones & McEwen, 2000). Commitment to a particular identity will not only impact the communicative behaviors of the student, but additionally influence the impact faculty verbal messages have on the self (Burke & Reitzes, 1991). Meaning-making capacity acts as a filter

through which contextual influences impact the multiple identity dimensions (Abes & Jones, 2004). For this study, the multiple identities of the student serve as the filter through which students perceive faculty messages, which in turn impacts student-centered learning outcomes.

Adapting the foundational assumptions and propositions of Identity Theory and the Communication Theory of Identity, the following comprise Interactional Theory of Identity. The theory's foundational assumption is that communicative interactions are critically shaped by interpretations or definitions of the relationship between communicators involved in the interactions. Beyond that, communication is at the heart of the propositions taken from the psychological, sociological, and sociopsychological traditions.

Psychological Propositions

1. Identities are both enduring and changing.
2. Identities are affective, cognitive, and behavioral.
3. Identities are a source of expectations and motivations.

Sociological Propositions

4. Identities are expressed in interactions and define roles.
5. Identities are emergent and enacted in interactions.

Sociopsychological Propositions

6. Identities have individual, social, and communal properties.
7. Identities have both content and relationship levels of interpretation.
8. Identities are hierarchically ordered meanings attributed to self as an object in a social situation.
9. Behaviors are an enactment of identities.

Rationale

A focus on students is integral to assessment and evaluation processes in educational contexts because the knowledge generated from such processes contributes to the overall understanding of what impacts retention and graduation rates (Astin, 1993; Leigler, 1997; Moore, Masterson, Christophel, & Shea, 1996). While universities are increasingly concerned with accountability and learning outcomes, another major concern for universities is student retention. There are many factors that lead to students' disengagement, withdrawal, and failure in school. One major factor is student satisfaction, which is viewed as "a key psychological-affective outcome" (Astin, 1977, 1993) and defined as the extent to which the needs and expectations of students are met (Leigler, 1997).

Another major factor is enhanced learning. Enhanced learning, which has been noted to be impacted by communication, has lead researchers in both communication and educational psychology to increasingly explore teaching behaviors (Moore, et al., 1996). This study specifically focuses on communication behaviors of teachers, as teachers may be among the first to recognize when a student is having a problem (Jones, 2008), a problem that may impact retention. Taken together, it seems that having identities confirmed or reinforced is central to a number of student-centered and communication outcomes, such as student satisfaction, motivation, engagement, commitment, and stronger relationships with faculty and peers (Bluic et al., 2011; Burke & Reitzes, 1991; Cross & Allen, 1970; Gregg et al., 2011; Jung & Hecht, 2004; Lounsbury et al., 2005; Torres et al., 2009. For the purposes of this study, learner empowerment and learning indicators are explored as the student-centered outcomes.

Empowerment, as defined within the educational context, is drawn from the organizational context (Houser & Frymier, 2009). Based on workplace literature, empowerment

is comprised of four dimensions: meaningfulness, competence, impact, and choice (Thomas & Velthouse, 1990). Meaningfulness refers to the attached value; competence refers to feelings regarding one's abilities; and impact refers to completion or achievement. The choice dimension, similar to self-determination, refers to the perceived opportunity for a decision. However, this dimension was dropped by Frymier, Shulman, and Houser (1996) in their operationalization of learner empowerment, as they found it irrelevant to the education context.

Research has established a connection between learner empowerment and a number of factors including teacher immediacy (Frymier et al., 1996), motivation (Weiner, 1990), and situational characteristics (Keller, 1983). Such research provides evidence for a combination of internal factors and teacher behaviors in regards to learner empowerment. This study is similar in focus as it explores the combination of student identity and teacher messages.

A number of student outcomes with a cognitive focus have and will continue to be addressed, but for the purposes of this study, learning indicators, as presented by Frymier and Houser (2000) are of central concern. As justified by Frymier et al., "there were certain behaviors or activities that students perform when they were involved in learning content" (1996, p. 193). The scale they then developed reflects both communication and behavioral activities. Scale items included statements such as "I explain course content to other students," "I compare the information from this class with other things I have learned," "I review the course content," and "I like to talk about what I'm doing in this class with friends and family."

For the reasons indicated above, it is important to look at external factors that impact such identities, specifically in regards to the interactions that take place between students and teachers. As Nyquist and Booth (1977, p. 13) noted, "the educational environment is a giant, multifaceted communication event composed of a variety of communication encounters." They

go on to say that these educational communication interactions influence the teacher-student instructional exchange and this study adds that those interactions also influence college students' identity.

While messages become the focal point of this study, the role of the environment is not discounted, similar to person-environment interaction theories. Person-environment interaction theories, from an instructional context, center on the premise that students experience the same environment, but experience that environment differently. The premise hones in on the importance of individual differences of students, which must be taken into consideration in instructional contexts. Taking this premise a step further, even though students receive the same faculty messages, they perceive the messages differently.

The Millennial generation, which makes up the majority of today's college students, needs consistent positive reinforcement (Thompson & Gregory, 2012). An understanding of the role of faculty verbal messages on college student identity would allow faculty to adapt their communication to foster student development at the individual level. However, the implication of such knowledge goes beyond the classroom walls. A better understanding of the role of faculty verbal messages on college student identity could potentially aid administration in better accounting for student retention issues. "In the global society of the twenty-first century, where change is the only certainty, . . . identity formation becomes the central and continuing task of education" (Chickering & Reisser, 1996, p. 208).

Missing from identity research as a whole is a general theory of identity that accounts for the interrelationships of groups, roles, and person identities (Stets & Burke, 2000). Moreover, personal and role identities "may be related through a common system of meaning: the meanings of role identities may overlap with the meanings of person identities" (Stets & Burke, 2000, p.

229). It is in this interrelationship that interactional identity, based on the communication perspective, is born.

Chapter 2: Literature Review

This study focuses on communication behaviors of teachers. More specifically, the purpose of this study is to better understand the relationships among faculty messages, educational outcomes, and college student identity. What sets this study apart from many studies on student populations is that this study explores students as individuals instead of as a group. Interpersonal classroom communication involves acknowledging students as individuals and creating connections between students and instructors (Nyquist & Booth, 1977). Because college is a time of transition for most students, this is a context in which explorations of students' identities are needed. Much of the research on student development within the college context has been based on the work of Chickering (1969) who posited that the disequilibrium in college that results from being in a new environment is the catalyst for student growth.

For many, college is a student's first opportunity at true independence; it is a time when students seek to discover themselves and where they fit with respect to a major and success in college (Ellis, 2004). During this time, students are developing identities, both individual and social, and making their own decisions about who they want to be. More specifically, in the college context, identity formation is closely tied to emerging adulthood (Torres et al., 2009). "Individuals need a sense of uniqueness and a sense of belonging" (Adams & Marshall, 1996, p. 429), both of which could be partially fulfilled by faculty messages. Take, for example, the following messages that students have reported hearing faculty say. One student, a first-year football player, reported to the author that a faculty member had told him he should not be in college because he was retarded, which made him question his ability to succeed in higher education. Another student shared with the author that she was terrified to take the public speaking course, but the support of the instructor both in and out of class made her believe by the

end of the semester that she was an accomplished speaker. It would be difficult to argue that such messages did not impact each student and one's view of self; it is through these examples, and others like them, that the interactional element of identity, centered on messages, becomes apparent.

While identity has been studied in a number of contexts, studies exploring the relationship between identity and academic outcomes have been scarce (Lounsbury, Huffstetler, Leong, & Gibson, 2005; Pascarella & Terenzini, 1991). To address the gap, early studies examined and found a positive relationship between strong identity and better college performance (Berzonsky, 1985; Cross & Allen, 1970; Lounsbury, et al., 2005), though some identity statuses (Marcia, 1966) lead to better college performance than others. For example, the diffuse identity status (not having committed to a particular path in life) related to students who were overachievers while the foreclosure identity status (having committed to a particular path in life for external rather than internal reasons) related to students who were underachievers (Berzonsky, 1985; Berzonsky & Kuk, 2005). However, such categories and conceptions are not themselves identities, but characteristics that impact identities.

Shaping Student Identity

Role of Student-Teacher Relationships

The relationship between the student and teacher impacts the quality of the student's college experience. Relationships between students and teachers have been identified as a critical factor in both affective and cognitive learning in the college classroom (Bloom, Hastings, & Madaus, 1971; Ellis, 2000). For example, some studies have found a positive link between the student-teacher relationship and both cognitive and affective outcomes (Goh & Fraser, 2000; Micari & Pazos, 2012). The implication of such research is the importance faculty members

play in the students' experience and achievement, both directly and indirectly. Because learning occurs both inside and outside the classroom, faculty can act as role models for their students by imparting important values and attitudes (Pascarella, 1980). Student-faculty relationships have generally been examined as entities that lead to outcomes in educational research rather than as the interpersonal encounters that must exist between two or more humans.

Student-faculty relationships are interpersonally driven (Frymier, 1994; Frymier & Houser, 2000; Plax & Kearney, 1992; Sorenson, 1989; Teven & McCroskey, 1997). While research on communication between students and teachers has historically been focused on content factors, studies of relational factors are becoming more prevalent. For example, referential skills and ego support predict learning (Frymier & Houser, 2000). Referential skills refer to the content factors of teaching; ego support refers to meeting the emotional needs of the students, which indicates that while students desire to earn high grades they also want to feel like their contribution and presence are valued. Other relational factors include immediacy (e.g., Anderson, 1979; Christophel, 1990), solidarity (e.g., Nussbaum & Scott, 1980), and humor (e.g., Wanzer & Frymier, 1999), to name a few.

Role of Student-Teacher Communication

Central to the impact of the student-teacher relationship is communication. For example, effective teachers are considered to have good rapport with their students and announce their accessibility in and out of the classroom (Pascarella & Terenzini, 1991). It is with this rapport and in these informal interactions that relationships are developed and more personal conversations take place; with strong rapport, concepts of caring and respect become important. Students desire care and respect from their teachers, and communication interactions are the means by which students determine if they are cared for and respected. Caring implies empathy

and investment, ideas that can be communicated nonverbally (smiling, making eye contact, leaning in while talking, spending time with students, etc.) and verbally (calling them by their first name, referring to their interests and shared experiences in conversation or lecture, etc.). Such behaviors are often referred to in education research as personalization (Bruning, Schraw, Norby, & Ronning, 2004).

Informal communicative interactions outside the classroom positively impact students' perceptions of intellectual growth, autonomy and independence, interpersonal skills, educational aspirations, and personal development (Pascarella & Terenzini, 1991). Moreover, "four major components run through the empirical findings and personal experiences described in the literature on higher education: accessibility, authenticity, knowledge, and an ability to communicate with students" (Chickering, 1969, p. 335). Generally speaking, then, research indicates that teachers should be genuine to who they are; competent in regard to content and other teaching materials/strategies; available to students both in and out of class; and effective communicators, able to exchange messages with students both personally and professionally in and out of class in a way that is conducive to the wants and needs of the students (Dobransky & Frymier, 2004).

A subset of research centered on student-teacher communication explores memorable messages: the ideas remembered long term (Stohl, 1986) that might influence behavior of individuals and might assist students in adapting to college life. The distinguishing factor between memorable messages and other such messages is "the retrospective judgment by the individual that the message was/is significant and can be precisely recalled" (Stohl, 1986, p. 234). Memorable messages are often delivered for support, an umbrella term encompassing respect and caring, a desire of college students (Montgomery & Cole, 2005). In the educational

setting, that care and respect function positively to enhance students' experiences and help them understand who they are as college students.

The way teachers interact with their students shows the student who the teachers think they are. Teachers, therefore, must carefully consider their messages in these interactions (Frymier & Houser, 2000; Komarraju, Musulkin, & Bhattacharya, 2010). Do the messages indicate the teacher sees a student as smart, capable, and valued, or do the messages indicate the teacher sees a student as lazy, dumb, and not worth the effort? Regardless of the words, the message is internalized and impacts the student's identity. While faculty messages are presented in a number of ways regarding a number of issues, feedback of student work may be the most common (Gee, 1972; Nazione, et al., 2011; Straub, 1997). Students prefer feedback on written assignments that are clear, understandable, valid, appropriate, specific, and elaborate (Straub, 1997). Furthermore, messages delivered in a positive manner with suggestions for improving the problems are rated positively by students. As suggested here, there are more and less effective ways for messages to be communicated. One such way is the relational teacher approach.

The Relational Teacher Approach (RTA) is based on the belief that "teaching involves a process of relational development and requires effective interpersonal communication skills to achieve satisfying outcomes" (Graham, West, & Schaller, 1992, p. 11). Interpersonal communication between teachers and students have two primary dimensions: relational and content, indicating that teachers need to focus as much on enhancing personal communication as they do on expertise and delivery of content (Frymier & Houser, 2000). Such personal communication could include teacher self-disclosure of teaching experiences, stories about family and friends, and information about their beliefs and values. It is through teacher self-disclosure that students learn information about their teachers that they are unlikely to obtain by

other means (Sorenson, 1989); students may be motivated to communicate with their teachers with the sole purpose of just getting to know them (Martin, Myers, & Mottet, 1999).

The roles of the students and teachers serve as a foundation for the communication that takes place in the relationship. In-class communication (ICC) impacts the likelihood of out-of-class communication (OCC) as students use this experience to assess teachers' potential behaviors and accessibility (Jaasma & Koper, 2002; Wilson, Woods, & Gaff, 1974). While most student-teacher communication occurs within the classroom, out-of-class communication also plays a significant role in student-teacher interaction (Astin, 1993; Aylor & Opplinger, 2003; Pascarella, 1980; Pascarella & Terenzini, 1991; Terenzini, Pascarella, & Blimling, 1996). OCC can be initiated by students or faculty, structured or unstructured, and scheduled or impromptu. Moreover, OCC offers great variability in content. While some student-teacher OCC is course related, topics more personal in nature may also surface. According to Jaasma and Koper (2001), OCC consists of six topic areas: course-related inquiries, self-disclosure, small talk, seeking advice, asking for favors, and sharing ideas. Additionally, such communication interactions can take place face-to-face, over the phone, through email or text, or through social media (Aylor & Opplinger, 2003; Myers, Martin, & Knapp, 2005; Nadler & Nadler, 2001). Approximately 70 percent of students report participating in OCC of some kind (Aylor & Opplinger, 2003; Jaasma & Koper, 1999) and the length of time spent participating in OCC ranged from 1-5 minutes for informal visits and 6-10 minutes for formal, or office, visits (Bippus, Kearney, Plax, & Brooks, 2003).

A subset of research on OCC is out-of-class support, or OCS. OCS is defined as out-of-class teacher communication "that demonstrates a responsiveness to students' needs; communicates caring; validates students' worth, feelings or actions; and helps students manage

and cope with stressful situations through the provision of information, assistance, or tangible resources" (Jones, 2008, p. 375). A number of positive outcomes related to out-of-class support, including student satisfaction and motivation to learn (Jones, 2008) as well as student engagement and achievement (Klem & Connell, 2004) are achieved with OCS. Overall, the teacher-student relationship has beneficial outcomes for students and their college student identities.

College Student Identity

Student Socialization

Within the various contexts in which socialization has been studied, a number of subthemes have emerged, including identity (Bogo, Raphael, & Roberts, 1993; Browne-Ferrigno, 2003; Hatfield, Montana, & Deffenbaugh, 2006). Socialization refers to learning the way "things work around here" to become a more able member of the organization (Brim & Wheeler, 1966). It is through this socialization process that students learn the culture of being a college student and their place within that culture. Once the culture is learned, a positive outcome of socialization is that organizational members accept, internalize, and behave according to the prevailing norms (Weidman & Stein, 2003). However, identifying the norms of a role can prove difficult as the role can differ across contexts and relationships. Roles serve as behavior maps by showing individuals the paths to take when performing their parts (O'Keefe, 1995). Within the college environment, students' interpersonal interactions with many others, particularly multiple faculty members teaching their classes each semester, help socialize them into the role of college student. While faculty are responsible for socializing students within a discipline, they rarely treat students as individuals with different intentions, motivations, and experiences that affect their identities (Jazvac-Martek, 2009). This socialization experience is

important because people define themselves based upon their communicative exchanges with others rather than in isolation and those internal beliefs also affect their responses to the world around them (Pascarella and Terenzini, 1991). These responses are often tied to what people believe their role and the appropriate behavior for that role is in a particular context.

Biddle (1979) provides four propositions in regards to roles. They are observable actions, performed, contextually bound, and specific to a group. First, roles are behavioral, or "overt actions or performances that may be observed and that characterize the persons observed"; second, roles are performed by persons, meaning that they are "confined to the behaviors of human beings"; third, roles are "normally limited in some way by contextual specification and do not represent the total set of all behaviors exhibited by those persons studied"; and fourth, roles "consist of those behaviors that are characteristic of a set of persons and a context" (p. 58). For some, roles are conceived-of patterns of behavior; for others, however, roles are seen as expectations that lead to such patterns of behavior. Role expectations are often governed by behavioral norms, though terms such as rules, beliefs, and preferences have been used in regard to role expectations (Biddle, 1979). As such, roles produce regular patterns of behavior, and such patterns lend themselves to predictability and generalization. While expectations are hypothesized by some to precede behaviors, an alternative hypothesis poses behavioral roles precede expected roles (Turner, 1968). These role expectations tie people together, meaning that others expect one to enact certain roles based on the behaviors, or behavioral roles, that a person has previously or is currently performing.

Functionalist research on roles has focused on norms and rules for behavior, but few have gotten at the individual conceptions and mental processes of role enactment. Those that have considered cognition in conjunction with roles (see Ashforth & Johnson, 2001) see cognition as a

way to explain social behavior. Behavior and cognition are equally important in understanding roles (Lynch, 2007). It is in pursuit of such understanding that social cognition becomes important. Social cognition is "the organized thoughts people have about human interaction" (Roloff & Berger, 1982, p. 21) and focuses on both cognitive processes of individuals and reflexive effects of these processes on interactions. More specifically, social cognition is a triangle of knowledge structures, cognitive processes and connections "among cognitions, affect, and motivation" (Sypher & Higgens, 1989, p. 311). In attempting to cope with a complex world, individuals produce and comprehend messages based on preexisting knowledge structures (e.g., schemata, scripts, and prototypes), integration of current information into knowledge structures, and inferences derived from the integration process. These knowledge structures organize the way the incoming information is processed by the individual (Sypher & Higgens, 1989).

Confirmation

One factor that has been identified to impact identity is teacher confirmation (Buber, 1957; Laing, 1961). Taken from instructional communication research, teacher confirmation occurs when teachers utilize messages that indicate students are "endorsed, recognized, and acknowledged as valuable, significant, and individuals" (Ellis, 2000, p. 266). Moreover, teacher confirmation is described as being composed of three dimensions: demonstrating interest in the process of student learning, responding to student questions and/or comments, and utilizing an interactive teaching style (Ellis, 2000). Such behaviors indicate to students that teachers are interested in helping them succeed, that they genuinely care for the students, and that they are willing to adapt their teaching to provide the most effective teaching practices and create the most conducive environment for student learning (Ellis, 2000, 2004).

Confirming communication has been argued to be an important factor in positive interpersonal relationships, dating back to Buber (1957) who claimed that people use such communication to discover and create social identities in their relationships (Edwards, Edwards, Torrens, & Beck, 2011). Confirming messages connect to identity because they suggest others are seen as having self-worth or being valuable. Likewise, disconfirming messages are likely to negatively impact conceptions of identity as they are seen to indicate perceptions of insignificance or indifference. Taken a step further, teacher confirmation has been positively tied to student motives for communicating with the instructor (Goodboy & Myers, 2008). Since confirming messages positively impact student identities, it could be assumed that disconfirming messages negatively impact student identities.

Credibility

While teacher credibility has been studied extensively in instructional communication research, for the purposes of this study, dimensions of character and caring are highlighted as they relate to teacher confirmation. Character refers to aspects of goodness such as honesty and trustworthiness (Frymier & Thompson, 1992). Caring refers to the concern an instructor has for a student's welfare (McCroskey, 1998). Teachers who are perceived by students as having character and exhibiting caring positively impact both in- and out-of class communication (Myers, 2004).

While communication between teachers and students has been viewed as a mutually influencing, relational process (Mottet, et al., 2004), for the purposes of this study, the influence teachers have on students, and more specifically their identity, is of interest. A number of studies explore the influence of teachers on students and the influence includes identity-related components. For example, active listening and messages that affirm students' conceptions of

themselves are critical to the development of the teacher-student relationship (Worley, Titsworth, Worley, & Cornett-DeVito, 2007). Affirming messages include communication that praises and validates students; active listening messages include relating content to students' lives.

"In addition to identifying the types of messages students receive that help them make sense of the college experience, it is important to understand how these messages influence student success" (Kranstuber, Carr, & Hosek, 2012, p. 47). This study explores student success in terms of student-centered outcomes of learner empowerment and learning indicators (Frymier & Houser, 1999). Taken together, the following models are proposed (see Figures 2.1 and 2.2).

Empowerment and learning indicators serve as the dependent variables. While faculty messages, both confirming and disconfirming, directly impact these variables, the impacts, based on the first model, are moderated by the variable of college student identities. More specifically, the following relationships are anticipated: learner empowerment and learning indicators are positively related to confirming messages and negatively related to disconfirming messages; the relationships between faculty verbal messages and learner empowerment and learning indicators are strengthened with the moderating variables of academic, involvement, professional, leadership, and interactional identities; and the relationships between faculty verbal messages as learner empowerment and learning indicators are reduced with the moderating variables of social and communal identities.

Learner empowerment and learning indicators remain the dependent variables for the second model. However, where identity serves as the moderator in the first model, it instead serves as the antecedent variable in the second model, such that identity impacts message interpretation, which in turn impacts the outcomes of learner empowerment and learning indicators. The relationships remain consistent with the previous model with positive

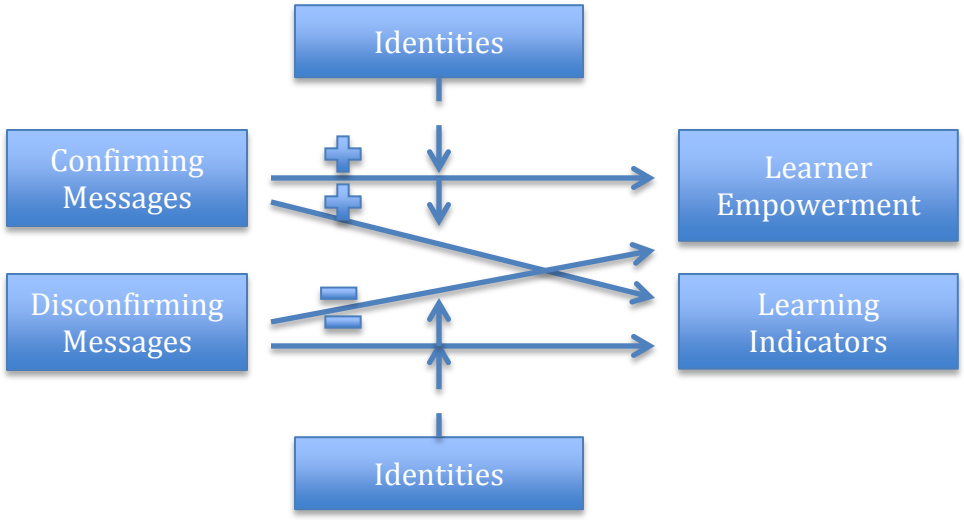

Figure 2.1: Interactional Theory of Identity (ITI) Model A

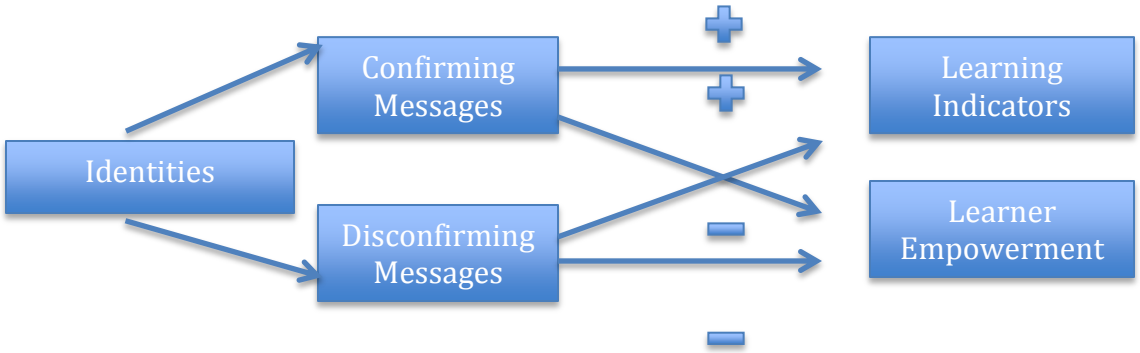

Figure 2.2: Interactional Theory of Identity (ITI) Model B

relationships expected between confirming messages and outcomes and negative relationships expected between disconfirming messages and outcomes.

Based on the models, the following research questions and hypotheses are posed.

RQ1: What is the relationship between teacher verbal messages and college student identities?

RQ1a. What is the relationship between teacher verbal messages and college academic identity?

RQ1b. What is the relationship between teacher verbal messages and college social identity?

RQ1c. What is the relationship between teacher verbal messages and college involvement identity?

RQ1d. What is the relationship between teacher verbal messages and college professional identity?

RQ1e. What is the relationship between teacher verbal messages and college leadership identity?

RQ1f. What is the relationship between teacher verbal messages and college communal identity?

RQ1g. What is the relationship between teacher verbal messages and college teacher interaction identity?

RQ2: What is the relationship between college student identities and learner empowerment?

RQ2a. What is the relationship between academic identity and learner empowerment?

RQ2b. What is the relationship between social identity and learner empowerment?

RQ2c. What is the relationship between involvement identity and learner empowerment?

RQ2d. What is the relationship between professional identity and learner empowerment?

RQ2e. What is the relationship between leadership identity and learner empowerment?

RQ2f. What is the relationship between communal identity and learner empowerment?

RQ2g. What is the relationship between college teacher interaction identity and learner empowerment?

RQ3: What is the relationship between college student identities and learning indicators?

RQ3a. What is the relationship between college academic identity and learning indicators?

RQ3b. What is the relationship between college social identity and learning indicators?

RQ3c. What is the relationship between college involvement identity and learning indicators?

RQ3d. What is the relationship between college professional identity and learning indicators?

RQ3e. What is the relationship between college leadership identity and learning indicators?

RQ3f. What is the relationship between college communal identity and learning indicators?

RQ3g. What is the relationship between college teacher interaction identity and learning indicators?

H1: Confirming teacher verbal messages are positively related to learner empowerment.

H1a. Acknowledgment messages are positively related to learner empowerment.

H1b. Endorsement messages are positively related to learner empowerment.

H2: Disconfirming teacher verbal messages are negatively related to learner empowerment.

H2a. Indifference messages are negatively related to learner empowerment.

H2b. Imperviousness messages are negatively related to learner empowerment.

H2c. Disqualification messages are negatively related to learner empowerment.

H3: Confirming teacher verbal messages are positively related to learning indicators.

H3a. Acknowledgment messages are positively related to learning indicators.

H3b. Endorsement messages are positively related to learning indicators.

H4: Disconfirming teacher verbal messages are negatively related to learning indicators.

H4a. Indifference messages are negatively related to learning indicators.

H4b. Imperviousness messages are negatively related to learning indicators.

H4c. Disqualification messages are negatively related to learning indicators.

Once the college student identities have been determined, a full test of model A involves examining the different identity types as moderators between faculty verbal messages and outcomes. A full test of model B involves examining the different identities as antecedents to faculty verbal messages and outcomes.

Chapter 3: Study 1

The purpose of this study was to develop and test two scales to be used in the final study. The first scale was the college student identity scale and the second scale was the faculty verbal messages scale. Details regarding scale development, testing, and analysis follow.

Method

This study used survey research to explore the relationships between college student identities and faculty verbal messages. Because this study explores the relationship between faculty verbal messages and college student identities, a student sample is justified and appropriate. Additionally, given that this line of research is in the initial exploratory stages, it was not necessary to seek out specific student characteristics, such as major, ethnicity, or other demographics. It was also not necessary, at this stage, to account for the number of nontraditional students in the sample, as it is believed that the students are impacted regardless of age, status, and other characteristics. Finally, at this stage, the type of institution is not critical—again, because it is believed that students are impacted regardless of whether they attend a two-year or four-year institution or whether they attend a research-focused or teaching-focused institution.

Participants

Students enrolled in an oral communication course at a large public Southeastern University were invited to participate in the study through the departmental research pool. Students enrolled in the course have a research participation requirement; moreover, approximately 35 sections of the course are offered each semester as a fulfillment of a general education requirement. The goal to obtain a minimum of 300 participants to reach the statistical power needed for an exploratory factor analysis (EFA) was achieved (N = 488) (Tabachnick &

Fidell, 2000). Participation was strictly voluntary as students were able to choose among many options for completing their research participation requirement.

The sample consisted of 488 (42.6%) males and 278 (57%) females with two not reporting sex; their ages were 18 to 39 (M = 19.36, SD = 1.95) with 4 not reporting age. The sample was overwhelmingly first-year students (N = 338, 69%), followed by 95 (19.5%) sophomores, 30 (6.1%) juniors, and 24 (4.9%) seniors, with one not reporting year in school. Given the course's general education nature, the prominence of first-year students in the sample was not surprising. While this makes for a homogenous sample in terms of year in school, this allows for more variety in college major: 24 (4.9%) agricultural sciences and natural resources; 2 (.4%) architecture and design; 167 (34.2%) arts and sciences; 125 (25.6%) business; 35 (7.2%) communication and information; 90 (18.4%) education, health, and human sciences; 3 (.6%) engineering; 23 (4.7%) nursing; 7 (1.4%) social work; and 11 (2.3%) other, with 1 (.005%) not reporting.

Procedures

Students initially registered with the research pool. Once registered, students were able to select from a number of research studies, including this study. If students chose this study, they registered for a time slot to complete the survey instrument. While a specific time was given, students had access to the link to complete the survey at their convenience until the deadline and could complete the online survey on any computer. Anonymity was achieved as each registered student was given a five-digit code to enter into the system and no names were attached to the code that was provided to the researcher when the online data were downloaded. However, it should be noted that the university server, where the Qualtrics software program is

located, does record IP addresses. Students were able to quit the survey at any time without penalty.

Instrument

The survey instrument consisted of 93 items composed of two measures: Faculty Verbal Messages Scale and College Student Identity Scale (see Appendix A). Demographic questions were also included.

Faculty Verbal Messages Scale. The Faculty Verbal Messages Scale, created by the researcher, assesses the extent to which students perceive various faculty verbal messages as impactful. More specifically, the scale consists of 50 messages students are likely to hear from faculty. Because no such scale exists, the scale was created by compiling messages reported in a number of studies on memorable messages (Gee, 1972; Kerssen-Griep, 2001; Knapp et al., 1981; Kranstuber et al., 2011; Nazione et al., 2011; Staub, 1997) in addition to messages developed by the researcher to align with the previously reported messages. Sample messages pulled from studies that examined memorable messages as they relate to college student life include "I just want to see you striving to perform better," "Be yourself," "You're capable of more than you think you are," and "You get what you put in" (Kerssen-Griep, 2001; Nazione, et al., 2011). Other messages related to college student life include those uttered by parents (Kranstuber, et al., 2011). Therefore, it was necessary to adapt some messages taken from this study to fit the student-teacher communication context. Sample messages include "Your education is what you make out of it," "Nowadays you have to go to graduate school to get a great job," and "You've got the rest of your life to be wild and crazy."

With respect to instructor messages specifically, previous research has examined student responses to teacher comments on English papers (Gee, 1972; Straub, 1997). Sample teacher

messages pulled from these studies include “Please proofread! Your spelling and grammar are poor,” “You raised some interesting questions,” and “These arguments are not convincing.” Memorable messages specific to one’s self-concept include “You can be whatever you want to be,” and “Always remember who you are” (Knapp, et al., 1981). The 7-point Likert-type scale ranges from 1-very negatively to 7-very positively with an eighth option of “person would never say.”

Based on previous research, it is anticipated that the messages will align with established confirming and disconfirming message categories (Goodboy & Myers, 2008). Confirming message categories include recognition, acknowledgment, and endorsement (Sieburg, 1985). Recognition refers to immediate nonverbal behaviors signaling communication opportunities. Acknowledgement involves direct communication though not necessarily agreement with the other. Endorsement refers to any response that indicates agreement or acceptance of the other person’s feelings. Disconfirming message categories include indifference, imperviousness, and disqualification (Cissna & Sieburg, 1981). Indifference refers to communication behaviors related to denying, avoiding, and rejecting. Imperviousness refers to messages that discredit the other person’s feelings and expressions. Disqualification refers to denying the other person’s significance—the speaker’s significance or the message’s significance. Because recognition is a category focused on nonverbal communication, it is not expected to relate to this study. However, the rest of the categories focus on verbal messages and therefore are anticipated to be linked to the results of this study.

One of the primary strengths of this measure is its ecological validity as these are actual messages and rated in relation to actual students and faculty members (the survey asks students to evaluate the messages based upon the instructor who taught the last class they attended).

Scenario-based approaches to studying teacher communication behaviors are flawed (Goodboy & Myers, 2014). Because this research design offers an accurate reflection of reality, internal validity is also achieved. Additionally, the breadth and depth of topics that arise in qualitative research, upon which the measure is based, provides support for construct and content validity of the measure (Gee, 1972; Kerssen-Griep, 2001; Knapp et al., 1981; Kranstuber et al., 2011; Nazione et al., 2011; Staub, 1997).

College Student Identity Scale. The College Student Identity Scale created by the researcher explores the multiple identities of college students. More specifically, the scale consists of 53 items, 35 items created by the researcher and 18 items adapted from the NSSE (National Survey of Student Engagement): The College Student Report (Indiana University, 2013). The adapted items are student behaviors that are expected to align with academic, social, and involvement identities. Sample items from the NSSE scale include "Participate in co-curricular activities (organizations, campus publications, student government, sorority or fraternity, etc.)," "Relax and socialize (time with friends, video games, TV or videos, etc.)," and "Discuss course ideas, concepts, or topics with a teacher outside of class." This portion of the scale is measured on a 5-point Likert-type scale ranging from 1-Never to 5-Very frequently. For this study, the five-point scale was converted to a seven-point scale to increase gradations of variability.

The remaining 35 items of the College Student Identity scale are composed of 7 dimensions with 5 items each: Academic, Social, Cultural, Professional, Leadership, Teacher Interaction, and Involvement. Each dimension includes positively and negatively worded items. The academic dimension focuses on coursework and studies. Sample items include "My grades impact how I see myself as a student," and "My dedication to my studies is an important part of

who I am as a student." The social dimension centers on interactions with friends. Sample items include "My relationships with my friends are an important part of who I am as a student," and "Interactions with my friends impact how I see myself as a student." The involvement dimension highlights participation in co-curricular activities and events. Sample items include "My involvement in co-curricular clubs and/or activities is an important part of who I am as a student," and "My campus involvement has no impact on how I see myself as a student." The professional dimension aligns with preparation for the future. Sample items include "My future plans/career goals are an important part of who I am as a student," and "My community involvement/volunteerism is an important part of who I am as a student." The leadership dimension focuses on governance or managerial roles both on and off campus. Sample items include "Serving as an officer in campus organizations or captain of my team is an important part of who I am as a student," and "Being a leader is an important part of who I am as a student." The cultural dimension aligns with demographic-type and social role characteristics. Sample items include "My culture/ethnic heritage is an important part of who I am as a student," and "My religion is an important part of who I am as a student." Finally, the teacher interaction dimension addresses student-teacher communication. Sample items include "The messages that I receive from my teachers impact how I see myself as a student," and "My interactions with my teachers impact how I see myself as a student."

Instrument Testing and Analysis

Upon receiving institutional review board approval, students in the oral communication course, as previously described, were offered research credit for participating in the study. All collected data were entered into SPSS to perform both descriptive and inferential statistical analyses.

According to Nunnally and Bernstein (1994), a comparison of the items for fit and variance is achieved through EFA. The EFA used principle axis factoring with varimax rotation to "maximize the variance of the squared loadings for each item" (DeVellis, 2012, p. 137). Factor retention followed standard requirements (Goodboy & Myers, 2014; Hatcher, 1994; McCroskey & Young, 1979). First, the factor must have an Eigenvalue greater than 1.0. Second, the primary loading must exceed .60 with a secondary loading of .40 or lower. Third, it should not cross load. Following Burgoon and Hale (1987), two additional criteria were required. First, a factor had to have at least three items. Second, the scree test had to show each additional factor was making a reasonable improvement in the variance accounted for. Items that did not meet the above criteria were deleted from the item pool and the EFA was recalculated until the criteria were met by all of the items.

Results

Faculty Verbal Messages

To begin, the factorability of the 50-item messages scale was examined based on the selected criteria. Before running the factor analysis, 7 items were removed because more than 20 percent of the participants reported that the instructor would never say: "You are lazy," "You do not have the ability to succeed in this class," "Spend more time studying than drinking," "Quit making excuses," "You are a failure," "You seem to have no idea what you are doing," and "You will never make it as a college student." The Kaiser-Meyer-Olkin measure of sampling adequacy was .94, above the recommended value of .6. Additionally, the Bartlett's test of sphericity was statistically significant [$x^2(903) = 12146.38$, $p = .000$]. Results of the exploratory factor analysis for the memorable messages scale, based on principal axis factoring with varimax rotation, revealed two factors, accounting for 53.3 percent of the variance. Analysis of the scree

plot supported the two-factor solution (see Figure 3.1); while a three-factor solution could be a valid interpretation, the third factor in this case was messages an instructor would not say.

After examining the factor loadings (see Table 3.1) and the descriptive statistics (see Table 3.2), 25 items were deleted to bring the scale down to 18 items. Two items were deleted because they cross-loaded: "This is interesting! Keep up the good work" and "Your arguments are convincing." Two items were deleted because there were not enough items in the factor to keep the factor: "You have a very original approach to the assignment" and "These ideas show keen insight into the problem." Lastly, 21 items were deleted because they failed to load: "What's done is done; all you can do is move forward," "You're capable of more than you think you are," "You did not follow the guidelines of the assignment," "A bad grade can be used as a motivational tool," "I just want to see you striving to perform better," "I can tell you put forth a lot of effort," "Your education is what you make out of it," "Don't stress over your grades," "You raised some interesting questions," "In your next draft, try to focus on developing more convincing arguments," "You get what you put in," "The only limits to your own achievements are the ones you put on yourself," "You are a hard worker," "You have improved tremendously," "The smartest do not always have the most success; it's the people who want it the most," "Just remember what you are in school for," "You've got the rest of your life to be wild and crazy," "It is important that you attend classes," "You are a good student," "You are responsible for your own learning," and "Nowadays you have to go to graduate school to get a great job." The resulting 18-item measure produced a reliability coefficient of .88 (see Appendix B).

With the factors established, making sense of the factors was the next step. The items in factor 1 aligned with confirming messages, as established by Goodboy and Myers (2008), and were therefore labeled as such. These items align as a factor and support previously theorized

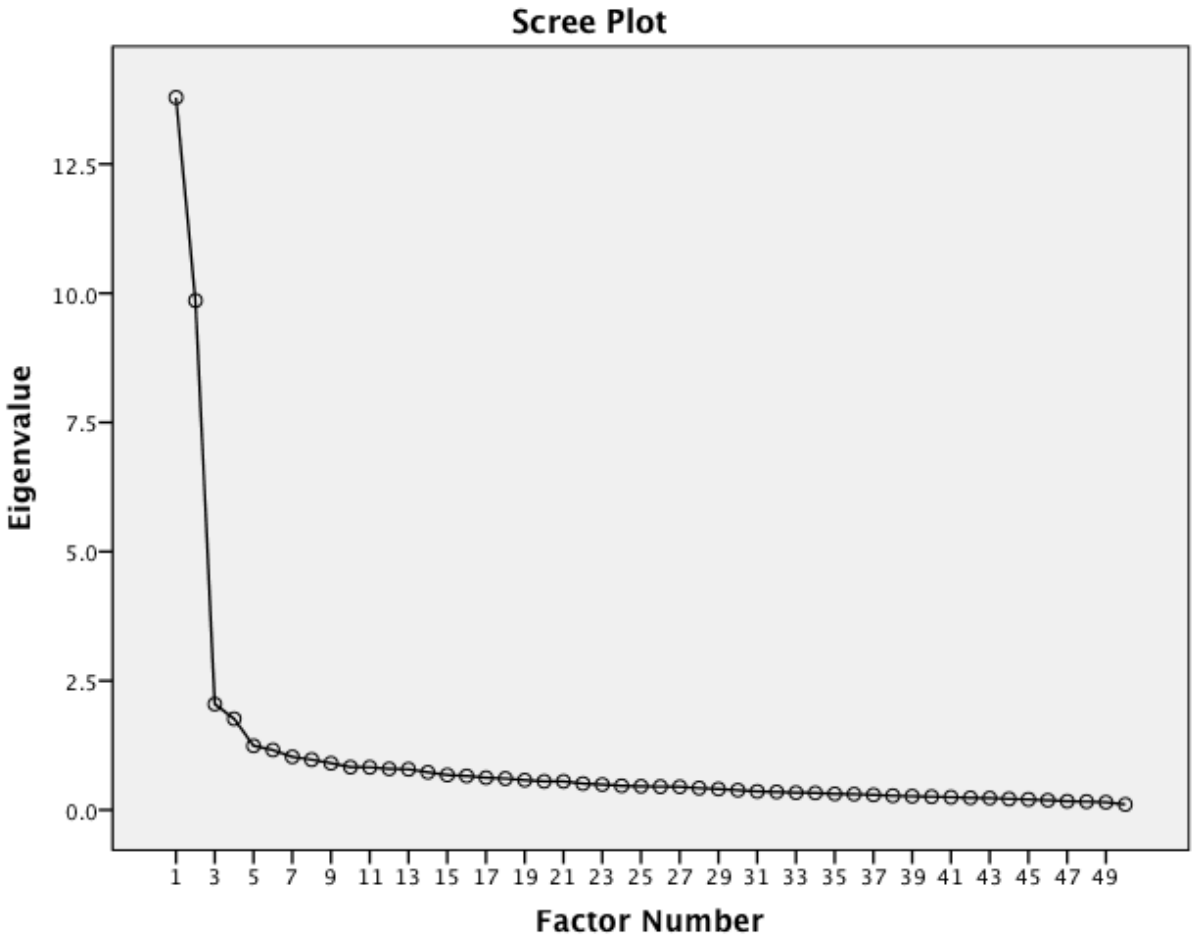

Figure 3.1: Faculty Verbal Messages Scree Plot

Table 3.1: Faculty Verbal Messages Factor Loadings

	Factor 1	Factor 2
You can be whatever you want to be.	**.800**	.129
Believe in yourself.	**.761**	.092
I believe in you.	**.749**	-.042
Always remember who you are.	**.728**	.070
You can do whatever you put your mind to.	**.725**	.015
You seem to have clear goals for yourself.	**.643**	.049
Be yourself.	**.623**	.183
We are a team.	**.622**	.045
You will be successful.	**.617**	-.165
Your paper/presentation did not make sense.	-.027	**.818**
You seem to be preoccupied with your social life.	.119	**.757**
You need to reevaluate your priorities.	.066	**.723**
Please proofread! Your grammar and spelling are poor.	-.028	**.706**
You need to work on your time management.	-.004	**.706**
You seem bored in class.	.062	**.621**
I don’t think this is the right major for you.	.117	**.621**
You seem to be having problems with the assignment.	.081	**.618**
Your paper/presentation needs to be better organized.	.049	**.600**

Table 3.2: Faculty Verbal Messages Descriptive Statistics

	Number of items	*M* (*SD*)	Skewness	Kurtosis	Alpha
Factor 1	9	55.89 (12.20)	-1.53	3.24	.915
Factor 2	9	30.06 (11.24)	.677	.781	.897

conceptions of confirming messages, which indicate students are "endorsed, recognized, and acknowledged as valuable, significant, and individuals" (Ellis, 2000, p. 266). Similarly, factor 2 aligned with disconfirming messages, also established by Goodboy and Myers (2008), and was therefore labeled as such. These items align as a factor and support previously theorized conceptions of disconfirming messages, which suggests that the individuals, their work, and/or their ideas are unimportant, insignificant, wrong, or invalid (Cissna & Sieburg, 1981).

Taken together, the scale can be used as a unidimensional or multidimensional measure based upon the instrument's reliability, or internal consistency. That is, students report similarly on hearing both confirming and disconfirming messages from faculty. For this study, as a unidimensional measure, a Cronbach's alpha of .88 was produced. As a multidimensional measure, a Cronbach's alpha of .92 was produced for the confirming dimension and a Cronbach's alpha of .90 was produced for the disconfirming dimension.

College Student Identity

The factorability of the 53-item college student identity scale was examined based on the selected criteria. The Kaiser-Meyer-Olkin measure of sampling adequacy was .88, above the recommended value of .6. Additionally, the Bartlett's test of sphericity was statistically

significant [$x^2(861) = 9723.21$, $p = .000$]. Results of the EFA for the college student identity scale revealed four factors, accounting for 52 percent of the variance after 9 iterations: academic success, involvement, social, and teacher interaction (see Tables 3.3 and 3.4). Analysis of the scree plot supported the four-factor solution (see Figure 3.2).

Of the original 53 items, results factor loadings (see Figure 3.3) and descriptive statistics (see Figure 3.4) suggested the removal of items. Four items were deleted because only 2 items loaded onto each factor: "My relationships with my teachers impact how I see myself as a student," "My interactions with my teachers impact how I see myself as a student," "My religion is an important part of who I am as a student," from the developed items, and "Attend religious services" from the engagement scale items. Another 20 items were deleted because they failed to load on any factor at the appropriate level: "My interactions with other students impact how I see myself as a student," "The messages that I receive from my teachers impact how I see myself as a student," "My political affiliation is an important part of who I am as a student," "Being in charge of campus activities or group projects is an important part of who I am as a student," "My culture/ethnic heritage is an important part of who I am as a student," "My community involvement and volunteer experiences are an important part of who I am as a student," "My involvement in internships/work impacts how I see myself as a student," "Prepare for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities," "Participate in intramural or intercollegiate sports," "Work for pay," "Do community service or volunteer work," "Relax and socialize (time with friends, video games, TV or videos, etc.)," "Keep up with friends online," "Attend cultural events," "Attend events that address important social, economic, or political issues," "Attend campus activities or events,"

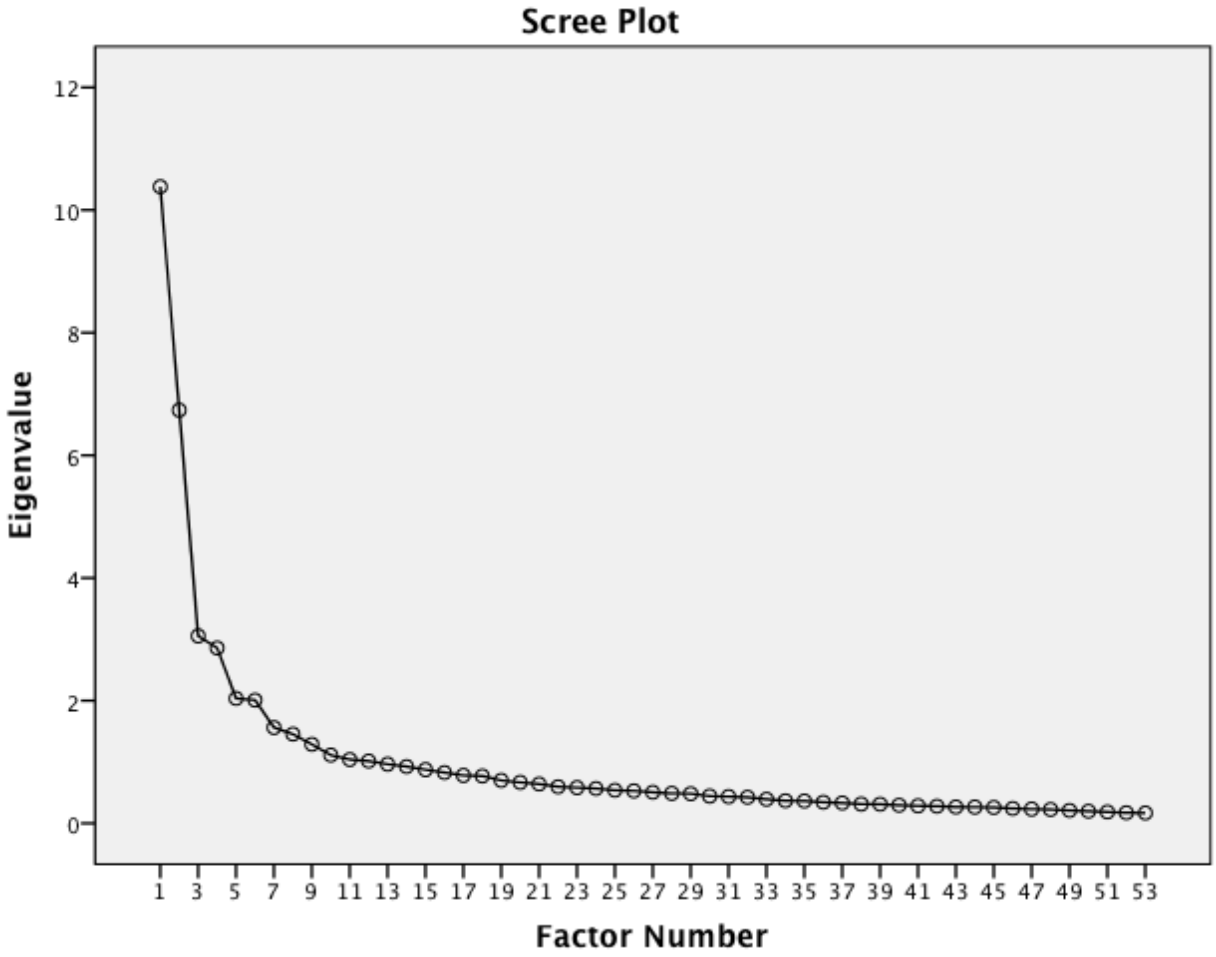

Figure 3.2: College Student Identities Scree Plot

and “Attend parties and other social events,” “Attempt to have a course assignment or overall course grade raised.” The resulting 17-item measure produced a reliability coefficient of .84 (see Appendix C).

With the factors established, making sense of the factors was the next step. The items in factor 1, named academic success, focus on achievement of students in their coursework and the impact of such achievements on their future. Factor 2, named involvement, focuses on student participation in campus organizations as well as leadership in such organizations. Factor 3, named social, centered on time spent with friends and participating in social activities. Factor 4, named teacher interaction, focuses on interactions between students and teachers both inside and outside of class as well as the topics of discussion.

While there are moderate correlations among academic success, social, and involvement identities (see Table 3.5), these three factors aligning as separate but related factors supports retaining the factors as individual factors. Retaining teacher interaction as a factor in the scale could be debatable. While it has very minimal relation to academic success and social, its significant relationship to involvement suggests retaining the factor at this step. However, this factor will need careful scrutiny in the confirmatory factor analysis stage.

Taken together, the scale can be used as a unidimensional or multidimensional measure. Because students are likely to possess all of these identities to varying extents, the internal consistency of responses across dimensions confirms the appropriateness of the use of the scale as a unidimensional measure. For this study, as a unidimensional measure, a Cronbach’s alpha of .83 was produced. As a multidimensional measure, a Cronbach’s alpha of .87 was produced for the academic success identity dimension, .82 for the social identity dimension, .85 for the involvement identity dimension, and .86 for the teacher interaction identity dimension.

Table 3.3: College Student Identities Factor Loadings

	Factor 1	Factor 2	Factor 3	Factor 4
My dedication to my studies is an important part of who I am as a student.	**.805**	-.041	.227	.101
My academic success is an important part of who I am as a student.	**.767**	-.081	.072	.172
My future plans/career goals are an important part of who I am as a student.	**.764**	-.015	.080	.184
My grades impact how I see myself as a student.	**.723**	-.035	.024	.076
Failing a class would impact how I see myself as a student.	**.632**	-.105	.019	.163
My relationships with my friends are an important part of who I am as a student.	.125	**.772**	.002	.193
Spending time with my friends is an important part of who I am as a student.	.207	**.764**	-.091	.180
Interactions with my friends impact how I see myself as a student.	.253	**.701**	.050	.157
My involvement in co-curricular clubs and/or activities is an important part of who I am as a student.	.283	.060	**.710**	.226
Participate in co-curricular activities (organizations, campus publications, student government, sorority or fraternity, etc.)	.032	.158	**.698**	.057

Table 3.3: College Student Identities Factor Loadings (Continued)

	Factor 1	Factor 2	Factor 3	Factor 4
My involvement in professional, academic and/or athletic clubs/activities is an important part of who I am as a student.	.290	.007	**.682**	.248
Serving as a campus officer in campus organizations or captain of my team is an important part of who I am as a student.	.100	.144	**.623**	.162
Talk about career plans with a teacher.	-.006	.094	-.036	**.772**
Discuss your academic performance with a teacher.	.088	.123	-.058	**.754**
Communicate with teachers outside of class about nonacademic topics.	-.139	.113	.016	**.739**
Discuss course ideas, concepts, or topics with a teacher outside of class.	-.055	.073	-.022	**.712**
Communicate with teachers in class.	.143	.096	.058	**.641**

Table 3.4: College Student Identities Descriptive Statistics

	Items	*M* (*SD*)	Skewness	Kurtosis	Alpha
Factor 1	5	30.42 (4.83)	-1.74	4.59	.87
Factor 2	4	18.40 (5.36)	-.46	-.01	.82
Factor 3	3	16.06 (3.70)	-.93	.11	.85
Factor 4	5	12.52 (4.30)	.44	-.22	.86

Table 3.5: Correlation Matrix of College Student Identity Factors

	Academic Success	**Social**	**Involvement**	**Mean**	**Standard Deviation**
Academic Success				30.42	4.83
Social	.375**			16.06	3.70
Involvement	.343**	.448**		18.40	5.36
Teacher Interaction	-.028	.026	.251**	12.52	4.30

** Correlation is significant at the 0.01 level (2-tailed).

Discussion

The purpose of this study was to develop and test the college student identity scale and the faculty verbal messages sale. Previous literature is inconsistent on the number of factors of identity because each looks at identity from a different perspective. For example, Marcia (1966) studies ego-identity statuses and Berzonsky (1989) studies identity styles. The college student identity scale used here was created to account for identities associated with a traditional measure of college student engagement. While 50 items were developed or adapted for the instrument, 17 items remained based on the results of the EFA. Similarly, the 50-item faculty verbal messages scale, developed based on actual messages from faculty as reported in a number of qualitative research studies (Gee, 1972; Kerssen-Griep, 2001; Knapp et al., 1981; Kranstuber et al., 2011; Nazione et al., 2011; Staub, 1997), was reduced to 18 items based on EFA results.

College Student Identity EFA

Seven identities were anticipated to factor under college student identity: academic, social, involvement, professional, leadership, communal, and teacher interaction. However, four identities resulted from the EFA (academic success, social, involvement, and teacher interaction). The predicted identities that were lost were professional, leadership, and communal. This would suggest that students live in the moment and do not feel that their future career is an important part of their current identity. Moreover, it appears that traditional conceptions of identity, related to race, ethnicity, religion, political affiliation, and the like, have little to do with the students' view of themselves as students. While it is likely these factors still play into an identity outside of a student identity, given the goal of many colleges and universities to create a campus of tolerance, students may be more likely to focus on the

similarities than the differences, such as “we are all students,” “we are students at a four-year university,” or “we are in the same major.”

A few of the items, which were expected to load on other factors, in fact loaded into the remaining factors. For example, “My future plans/career goals are an important part of who I am as a student” was expected to load with professional but instead loaded with academic success. Students attend college for many reasons, but one of the main reasons is to land a specific job or enter a specific field upon graduation. Therefore, the academic success and professional items are closely interwoven within an identity, likely due to the underlying goals associated with academic achievement. Similarly, “Serving as a campus officer in campus organizations or captain of my team is an important part of who I am as a student” was expected to load with leadership but instead loaded with involvement. As with professional and academic success, leadership and involvement may be interwoven with an identity for goal-related reasons. Students often get involved in on- and off-campus organizations to gain leadership skills and encounter leadership opportunities within the organizations.

Faculty Verbal Messages EFA

Literature regarding messages, all qualitative in nature, was used to develop the faculty verbal messages scale. From these studies, 50 messages were selected for the study. Based on the results of the EFA, 18 items remained. Of the 18 items, 11 items were those pulled or adapted from qualitative studies: two from Knapp et al. (1981), two from Kranstuber et al. (2011), two from Kerssen-Griep (2001), four from Gee (1972), and one from Nazione et al. (2011). The remaining eight items were those created by the researcher to align with the items taken from previous research. Many of the lost items could be characterized as advice and were likely not found as confirming or disconfirming: “Your education is what you make out of it,”

"Don't stress over grades," "You get what you put in," "The only limits to your own achievements are the ones you put on yourself," "Just remember what you are in school for," and "Nowadays you have to go to graduate school to get a great job." However, while an advice category makes sense on the surface, these items did not load together to support advice as a dimension. This could be because some of the items are worded more similarly to something you would hear from a parent than a teacher; it may also be because some items are behavior-centered while others are more person-centered; or it may be because students are not as receptive to advice messages from faculty, outside of course-related advice.

Moreover, two dimensions (confirming and disconfirming) with three subdimensions each were expected; only the two dimensions were accounted for based on the EFA results. Looking back at the items included in the measure, it seems the specificity of the wording in the items was not enough to distinguish between the sub-dimensions. The sub-dimensions were designed to specifically account for messages regarding feelings, messages, behaviors, or the speakers themselves. The items in this scale, however, are more generic in nature, which likely is the reasoning for only the two main dimensions, confirming and disconfirming, being accounted for. A third dimension initially resulted, but given the nature of the dimension, it was removed. This dimension included items for which at least 20 percent of the students reported that the teacher would never say. These items likely grouped together as messages a teacher would never say because each message is critical of the students' abilities and commitments and were so critical in nature that such a messages from a teacher would be overstepping the bounds of the relationship.

Research Questions and Hypotheses

Based on the results of the EFA, the original research questions and hypotheses were modified to match the resulting college student identities and faculty verbal messages for CFA and model testing.

RQ1: What is the relationship between faculty verbal messages and college student identities?

RQ1a. What is the relationship between confirming faculty verbal messages and college academic success identity?

RQ1b. What is the relationship between confirming faculty verbal messages and college social identity?

RQ1c. What is the relationship between confirming faculty verbal messages and college involvement identity?

RQ1d. What is the relationship between confirming faculty verbal messages and college teacher interaction identity?

RQ1e. What is the relationship between disconfirming faculty verbal messages and college academic success identity?

RQ1f. What is the relationship between disconfirming faculty verbal messages and college social identity?

RQ1g. What is the relationship between disconfirming faculty verbal messages and college involvement identity?

RQ1h. What is the relationship between disconfirming faculty verbal messages and college teacher interaction identity?

RQ2: What is the relationship between college student identities and learner empowerment?

RQ2a. What is the relationship between college academic success identity and learner empowerment?

RQ2b. What is the relationship between college social identity and learner empowerment?

RQ2c. What is the relationship between college involvement identity and learner empowerment?

RQ2d. What is the relationship between college teacher interaction identity and learner empowerment?

RQ3: What is the relationship between college student identities and learning indicators?

RQ3a. What is the relationship between college academic success identity and learning indicators?

RQ3b. What is the relationship between college social identity and learning indicators?

RQ3c. What is the relationship between college involvement identity and learning indicators?

RQ3d. What is the relationship between college teacher interaction identity and learning indicators?

H1: Confirming teacher verbal messages are positively related to learner empowerment.

H2: Disconfirming teacher verbal messages are negatively related to learner empowerment.

H3: Confirming teacher verbal messages are positively related to learning indicators.

H4: Disconfirming teacher verbal messages are negatively related to learning indicators.

Chapter 4: Study 2

The purpose of this study was to validate the dimensionality of the developed measures and provide evidence for construct validity. According to Nunnally and Bernstein (1994), confirmatory factor analyses (CFA) determine how well the data fit hypothesized factors regarding the underlying structure of the measurement model. Moreover, the case for the measurement model is strengthened through validity tests provided by CFA. A CFA was conducted for both the faculty verbal messages scale and the college student identity measure, testing internal consistency. The AMOS maximum likelihood parameter estimation algorithm was used to test the factors of each measure as identified in the EFA.

A CFA was conducted on the preliminary verbal messages and college student identity measures to explore goodness of fit. The following criteria for evaluating the results were used: CFI and NFI should exceed .90, RMSEA should be less than .08, and chi square should be low (Marsh, Balla, & McDonald, 1988). Traditionally, such analysis should result in a *p*-value of greater than .05 and a CMIN/DF of less than 2. However, these numbers are based on a sample size of approximately 300, and given that the sample size for this study was 576, such numbers, specifically in regard to a low chi square and *p*-value greater than .05, are difficult to achieve (Marsh et al., 1988).

Method

Participants

Students enrolled in the general education business and professional speaking course, were invited to participate in the study through the department's research pool. Students enrolled in this course have a research participation requirement; moreover, approximately 35 sections of this course are offered each semester as a fulfillment of a general education

requirement. Participation was strictly voluntary as students could choose among a variety of research opportunities to complete their requirement.

The goal was to obtain a sample size of greater than 200 participants; any sample size exceeding 200 participants is considered to be a large sample for a CFA (Kline, 2011). The sample (N = 576) of volunteer participants consisted of 254 (44.1%) males and 321 (55.7%) females, with 1 not reporting sex. Their ages were 18 to 42 (*M* = 19.29, *SD* = 1.94) with 3 not reporting age. The sample was predominantly first-year students (N = 410, 71.2%), followed by 103 (17.9%) sophomores, 47 (8.2%) juniors, and 16 (2.8%) seniors. Again, given the course's general education nature, the prominence of first-year students in the sample was not surprising. While this makes for a homogenous sample in terms of year in school, it allows for more variety in college major: 22 (3.8%) agricultural sciences and natural resources; 1 (.2%) architecture and design; 90 (15.6%) arts and sciences; 257 (44.6%) college of business; 78 (13.5%) communication and information; 90 (15.6%) education, health, and human sciences; 2 (.3%) engineering; 29 (5.0%) nursing; 2 (.3%) social work; and 5 (.9%) other.

Procedures

Students initially registered with the Communication Studies research pool. Once registered, students were able to select from a number of research studies, including this study. If this study was chosen by the student, the student would then be able to register for a time slot to complete the survey instrument. While a specific time was given, the students had access to the link to complete the survey at their convenience until the deadline. Anonymity was achieved as each registered student was given a five-digit code to enter into the system and no names attached to the code were provided to the researcher. However, it should be noted that the

Qualtrics software program on the university server does record IP addresses. Students were able to quit the survey at any time without penalty.

Instrument

This final instrument was the measure used for the EFA with the addition of two student outcomes measures. More specifically, the final instrument was composed of four measures: Faculty Verbal Messages scale, College Student Identity scale, Learning Indicators scale, and Learner Empowerment scale (see Appendix D). Demographic questions were also included.

Faculty Verbal Messages Scale. The Faculty Verbal Messages scale was created by the researcher to get at the impact of faculty verbal messages on students. More specifically, the scale consisted of messages students are likely to hear from faculty. The seven-point Likert-type scale ranges from 1-very negatively to 7-very positively with an eighth option of "person would never say." In this study, factor reliabilities of .92 for confirming and .89 for disconfirming were produced. None of the items had more than 20 percent of the students indicate that the instructor would not say; the criterion for removal used in the exploratory factor analysis was not met so all items were retained for the confirmatory factor analysis.

College Student Identity Scale. The College Student Identity scale was created by the researcher to explore the multiple identities of college students and is measured on a seven-point Likert-type scale ranging from 1-strongly disagree to 7-strongly agree. In this study, factor reliabilities of .89 for academic success, .80 for involvement, .86 for social, and .88 for teacher interaction were achieved.

Learner Empowerment Measure. The Learner Empowerment measure (Frymier, Shulman, & Houser, 1996) is a 35-item Likert-type scale ranging from 1-never to 5-very often. The measure is divided into three subscales: impact (16 items), meaningfulness (10 items), and

competence (9 items). Sample items include "My participation is important to the success of this class," "The tasks required of me in this class are valuable to me," and "I believe that I am capable of achieving my goals in this class." Frymier et al. (1996) reported a .89 overall reliability and subscale reliabilities (impact, meaningfulness, and competence) between .92 and .95. In this study, an overall reliability coefficient of .96 was produced with reliability coefficients of .93 for impact, .93 for meaningfulness, and .91 for competence. In the past, this scale has been used as both a unidimensional (Schrodt, et al., 2008) and a three-dimension scale (Frymier, Shulman, & Houser, 1996, Houser & Frymier, 2009) or both (Schrodt, Whitt, Myers, Turman, Barton, & Jernberg, 2008). Therefore, in this study, the scale was tested as unidimensional and multidimensional.

To be thorough, a principal axis factor analysis using varimax rotation was run using the present study's data. Results of the factor analysis revealed 5 factors, accounting for 63.34 percent of the variance after 7 iterations. However, no items loaded on factor five. Four items loaded on factor four, and each of these items suggested weak or no empowerment. The remaining three factors loaded as expected based on the research of Frymier et al. (1996), though 11 items failed to meet the loading criteria. While this factor analysis suggests there may be structural issues with the multi-dimensional aspects of the scale, the present study used the scale in its original unidimensional form because previous research better accounted for the validity of the unidimensional scale (Frymier et al., 1996, Schrodt et al, 2008).

Learning Indicators Scale. The revised Learning Indicators scale (Frymier & Houser, 1999) is an eight-item Likert-type scale ranging from 1-never to 5-very often. The items reflect affective, cognitive, and behavioral outcomes of learning. Sample items include "I compare the information from this class with other things I have learned," and "I like to talk about what I'm

doing in this class with friends and family." The original version of the learning indicators scale had a reliability coefficient of .84 and the revised version had a reliability coefficient of .85 (Frymier et al., 1999). In this study, a reliability coefficient of .90 was produced.

In determining whether to use the unidimensional or multidimensional version of the scale for testing the hypotheses, a principal axis factor analysis with varimax rotation was conducted. Results of the factors analysis revealed 2 factors, accounting for 62.78 percent of the variance after 3 iterations. However, only two items loaded on the second factor, which suggests that these two items should be removed, leaving a one-factor solution and supporting the findings of Frymier at al. (1999). Given that these two items are the only two items related to interactions with students, the separate loading makes sense. Due to the high reliability found and previous research utilizing a single factor, the unidimensional scale was used as designed for this study.

Analysis

All collected data were entered into SPSS to perform both descriptive and inferential statistical analyses. Confirmatory factor analysis (CFA), a method for providing construct validity, was used to validate the dimensionality of the developed measure (James, Mulaik, & Brett, 1982; Levine, 2005).

In addition to the CFA, a path analysis was used to test the proposed models (See figures 2.1 and 2.2). Through the path analysis, correlations were also used to test the fit of the proposed models (Kline, 2011). Mean, standard deviation, and reliability were calculated for each of the variables measured (faculty verbal messages, college student identity, learner empowerment, and learning indicators).

To explore the models more fully, analysis included an ordinary least squares estimation (OLS) to test one path at a time through correlation analysis, with college student identity as the moderating variable in the first model and the antecedent variable in the second model (Jaccard, Wan, & Turrisi, 1990; Kline, 201; Lleras, 2005). A 95 percent confidence interval for the path coefficient was estimated for each path. The model needed to be rejected if 0 were inside the confidence interval for any of the paths. If not, the overall fit of the model was assessed. Starting with local tests, a 95 percent confidence interval for the expected correlation between faculty verbal messages and college student identity as well as between college student identity and student outcomes of learner empowerment and learning indicators was calculated. Assuming the confidence intervals were achieved in relation to the correlations, a global Chi-square test of fit for the model was produced by conducting a path analysis. The model could not be rejected if the test produced non-significant results, as this would indicate the global error between the model and the data would fall within a sampling error of zero. If the confidence intervals were not achieved or if significant global error were found, the model must be rejected. Should both models be rejected, alternative models would be tested using the same procedures to develop a model with better fit.

Results

Faculty Verbal Messages

The 18-item, 2-factor faculty verbal messages scale (see Table 4.1 for item and factor symbol identifiers), based on the EFA, did not meet the criteria [x^2(N = 576) = 761.94, CMIN/DF = 5.686, p = .000, RMSEA = .090, NFI = .874, and CFI = .893]. Based on the item loadings (see Figure 4.1), three items were removed due to fit: “You will be successful,” “Your paper/presentation needs to be better organized,” and “You seem to be having problems with the

Table 4.1: Faculty Verbal Messages Items and Factors

Symbol	Identifier
F1	Confirming messages
F2	Disconfirming messages
M4	We are a team.
M9	Always remember who you are.
M14	Be yourself.
M23	You seem to have clear goals for yourself.
M26	You can do whatever you put your mind to.
M31	You can be whatever you want to be.
M37	Believe in yourself.
M50	I believe in you.
M15	Your paper/presentation needs to be better organized.
M17	You need to reevaluate your priorities.
M20	You seem bored in class.
M22	I don't think this is the right major for you.
M30	You seem to be preoccupied with your social life.
M35	Your paper/presentation did not make sense.
M39	You seem to be having problems with the assignment.
M45	Please proofread! Your grammar and spelling are poor.
M48	You need to work on your time management.

assignment," resulting in 15 items. While the NFI and CFI criteria were met, RMSEA was still above .08 [x^2(N = 576) = 461.793, CMIN/DF = 5.189, p = .000, RMSEA = .085, NFI = .907, CFI = .923]. Looking at the items remaining (see Figure 4.2), two items were based more on the assignment output than the students themselves, so these items were removed: "Your paper/presentation did not make sense" and "Please proofread! Your grammar and spelling are poor," resulting in 13 items. At this point, the lowest chi square was achieved and the NFI, CFI, and RMSEA criteria were met [x^2(N = 576) = 260.475, CMIN/DF = 4.070, p = .000, RMSEA = .073, NFI = .936, CFI = .951]. Figure 4.3 illustrates the reduced-item model.

While the third model results in the best fit, statistically speaking, the number of items lost is concerning. Given that the NFI and CFI both exceeded .90 in the second and third model,

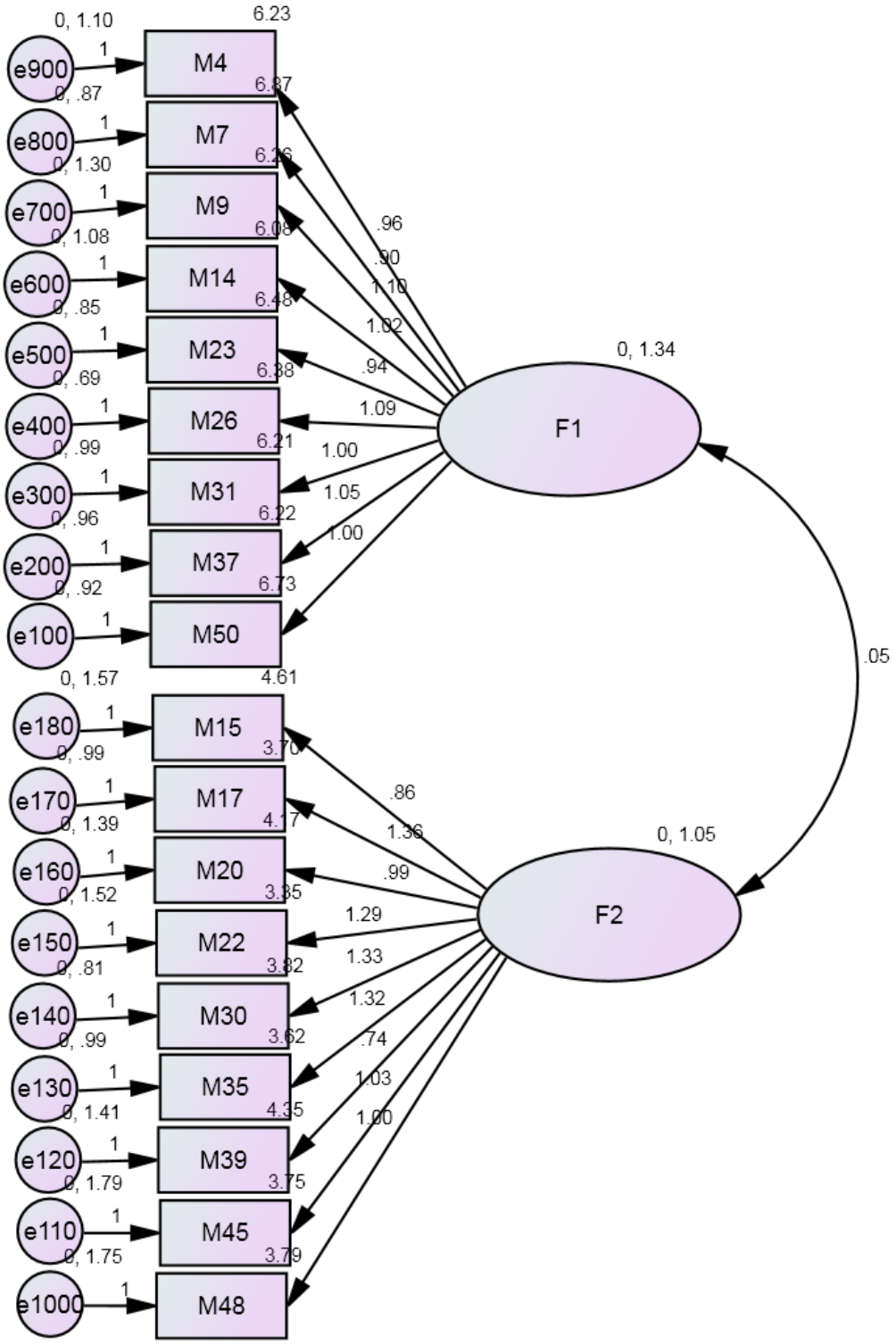

Figure 4.1: Verbal Messages Model 1

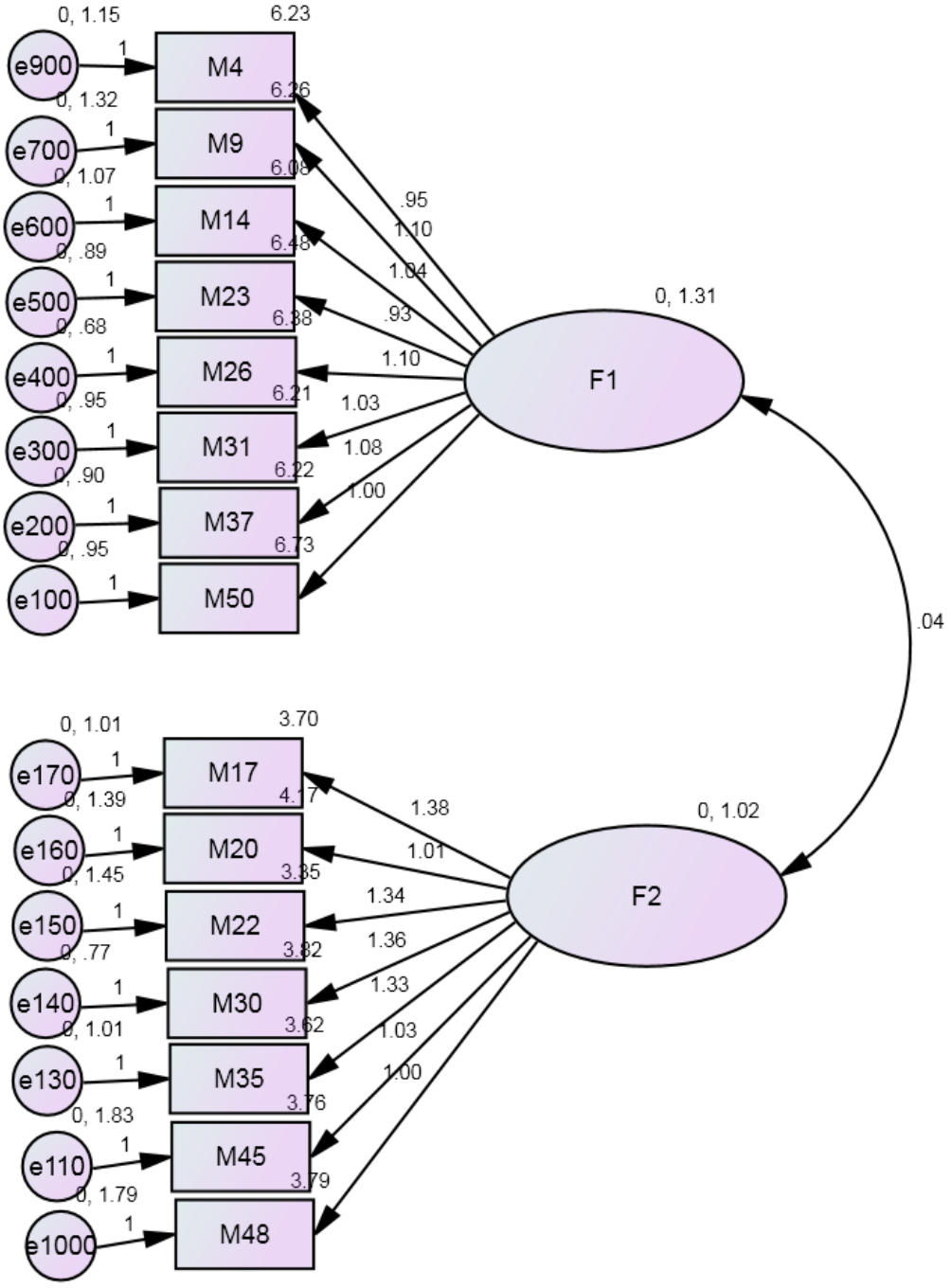

Figure 4.2: Verbal Messages Model 2

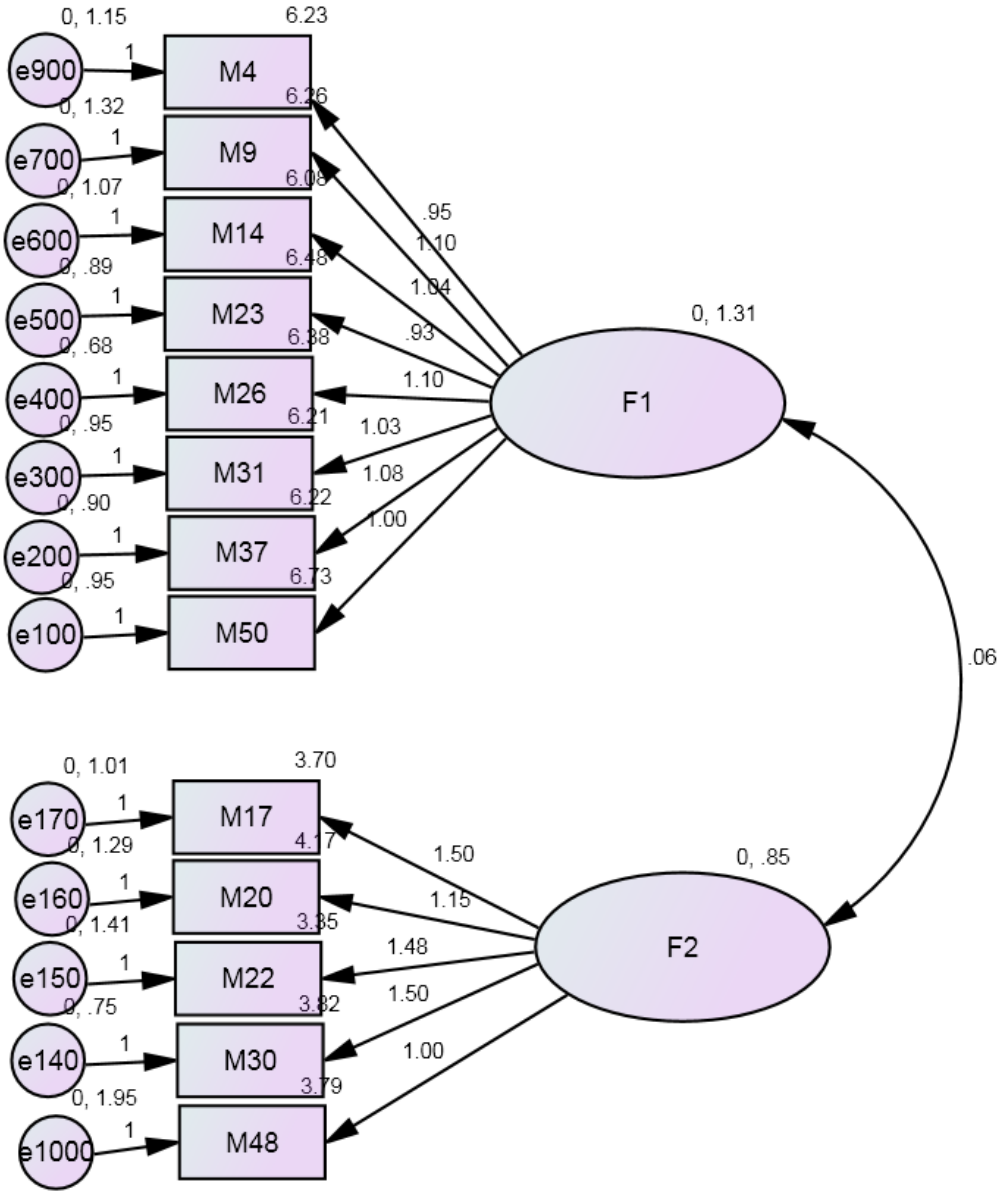

Figure 4.3: Verbal Messages Model 3

an examination of the reliability of the measures was used to help determine which model is preferred. The second model, with 15 items, resulted in a Cronbach's alpha of .85 while the third model, with 13 items, resulted in a Cronbach's alpha of .84, when used as a unidimensional scale. When used as a multidimensional scale, the second model produced an alpha reliability of .92 for confirming and .88 for disconfirming while the third model produced an alpha reliability of .92 for confirming and .85 for disconfirming. While further testing of the measure and models is needed, at this point, the second model is chosen because it produces the higher of the reliability coefficients and retains more items.

Relationships between the items and the factors were examined using a series of Pearson correlations. The correlations (see Appendix E) among the confirming messages ranged from r = .484 to r = .668, with each of the items correlating at a .000 level of significance. The correlations among the disconfirming messages ranged from r = .347 to r = .674, with each of the items correlating at a .000 level of significance. The correlation between the overall factors of confirming and disconfirming was weak and not statistically significant (r = .034, p = .434).

College Student Identity

Using the criteria previously outlined, the 17-item, 4-factor college student identity scale (see Table 4.2 for item and factor symbol identifiers) was tested and did not meet the criteria [x^2(N = 576) = 574.920, CMIN/DF = 5.088, p = .000, RMSEA = .084, NFI = .894, and CFI = .912]. Based on the item loadings (see Figure 4.4), two items were removed due to fit: "Communicate with teachers in class" and "Communicate with teachers outside of class about nonacademic topics," resulting in 15 items (see Figure 4.5). While the NFI and CFI criteria were met, RMSEA was exactly .08 [x^2(N = 576) = 393.312, CMIN/DF = 4.682, p = .000, RMSEA = .080, NFI = .914, CFI = .931]. One more item, the one with the lowest loading (see Figure 4.6),

Table 4.2: College Student Identity Items and Factors

Symbol	Identifier
F1	Academic success
F2	Social
F3	Involvement
F4	Teacher interaction
I2	My dedication to my studies is an important part of who I am as a student.
I12	My future plans/career goals are an important part of who I am as a student.
I14	Failing a class would not impact how I see myself as a student.
I19	My grades impact how I see myself as a student.
I31	My academic success is an important part of who I am as a student.
I7	Spending time with my friends is an important part of who I am as a student.
I13	My relationships with my friends are an important part of who I am as a student.
I32	Interactions with my friends impact how I see myself as a student.
I1	My involvement in co-curricular clubs and/or activities is an important part of who I am as a student.
I9	My involvement in professional/academic/athletic clubs/activities are an important part of who I am as a student.
I26	Serving as an officer in campus organizations or captain of my team is an important part of how I see myself as a student.
En2	Participate in co-curricular activities (organizations, campus publications, student government, sorority or fraternity, etc.)
En13	Communicating with faculty in class.
En14	Communicating with faculty outside of class about nonacademic topics.
En15	Talk about career plans with a teacher.
En16	Discuss your academic performance with a teacher.
En17	Discuss course ideas, concepts, or topics with a teacher outside of class.

was removed ("My future plans/career goals are an important part of who I am as a student"), resulting in 14 items; the lowest chi square was achieved and the NFI, CFI, and RMSEA criteria were met [x^2(N = 576) = 323.697, CMIN/DF = 4.557, p = .000, RMSEA = .079, NFI = .921, CFI = .937].

While the third model results in the best fit, statistically speaking, the number of items lost is concerning. Moreover, there is only a slight difference in RMSEA between models 2 and 3. Given that the NFI and CFI both exceeded .90 in the second and third models, an examination of the reliability of the measures was used to help determine which model is preferred. The second model, with 15 items, resulted in a Cronbach's alpha of .86 while the third model, with 14 items, resulted in a Cronbach's alpha of .85, as a unidimensional scale. As a multidimensional scale, alpha reliabilities for the academic success, social, involvement, and teacher interaction dimensions were .89, .86, .76, .88, and respectively for model 2 and .87, .86, .76, and .88 respectively for model 3. While further testing of the measure and models is needed, at this point, the second model was chosen because it results in a higher reliability coefficient and retains more items.

To establish additional construct validity, relationships between the items and the factors were examined using a series of Pearson correlations. The correlations (see Appendix F) among the academic success identity items ranged from r = .504 to r = .726, with each of the items correlating at a .000 level of significance. The correlations among the social identity items ranged from r = .602 to r = .725, with each of the items correlating at a .000 level of significance. The correlations among the involvement identity items ranged from r = .411 to r = .665, with each of the items correlating at a .000 level of significance. The correlations among the teacher interaction identity items ranged from r = .625 to r = .683, with each of the items

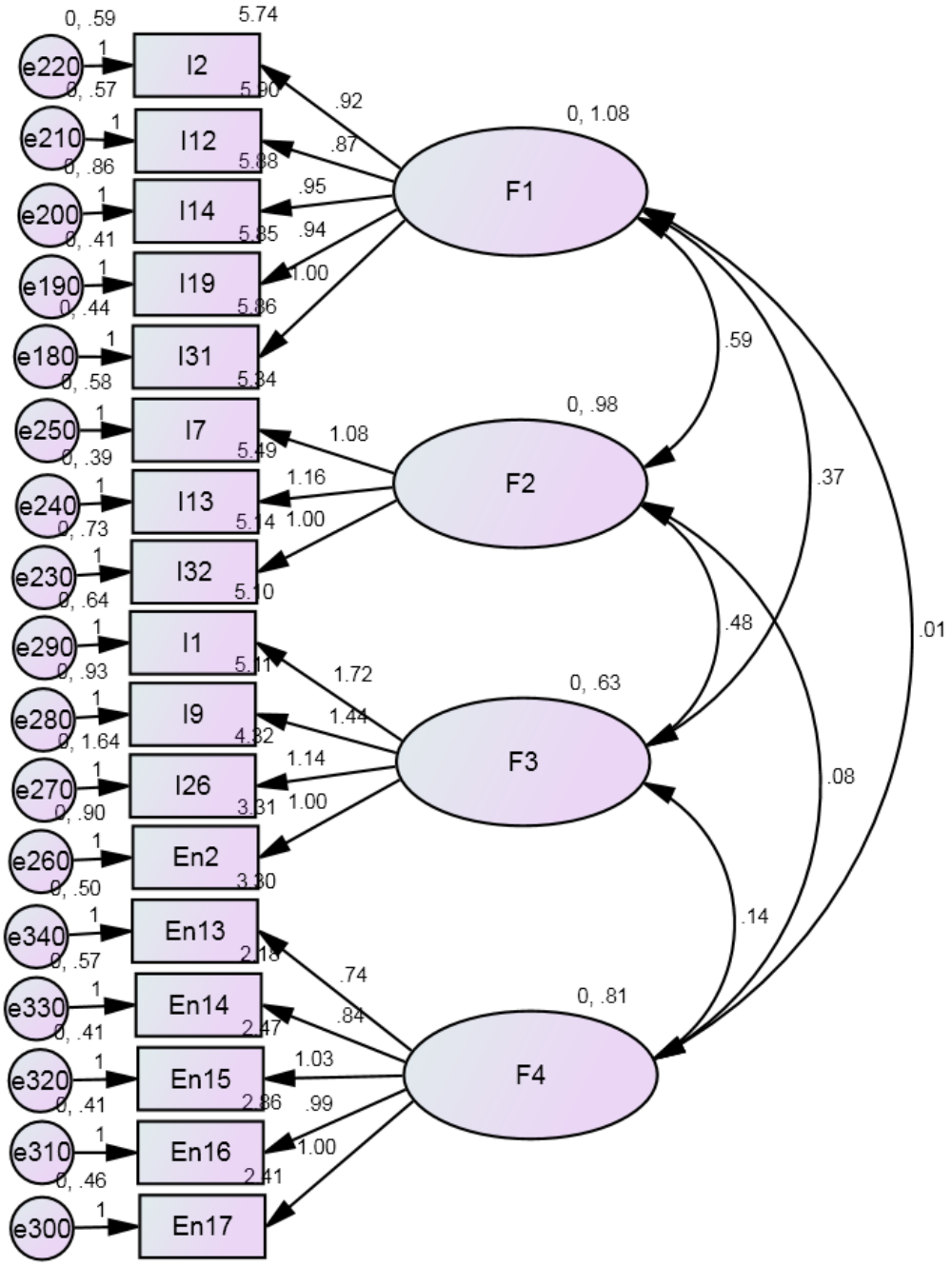

Figure 4.4: College Student Identity Model 1

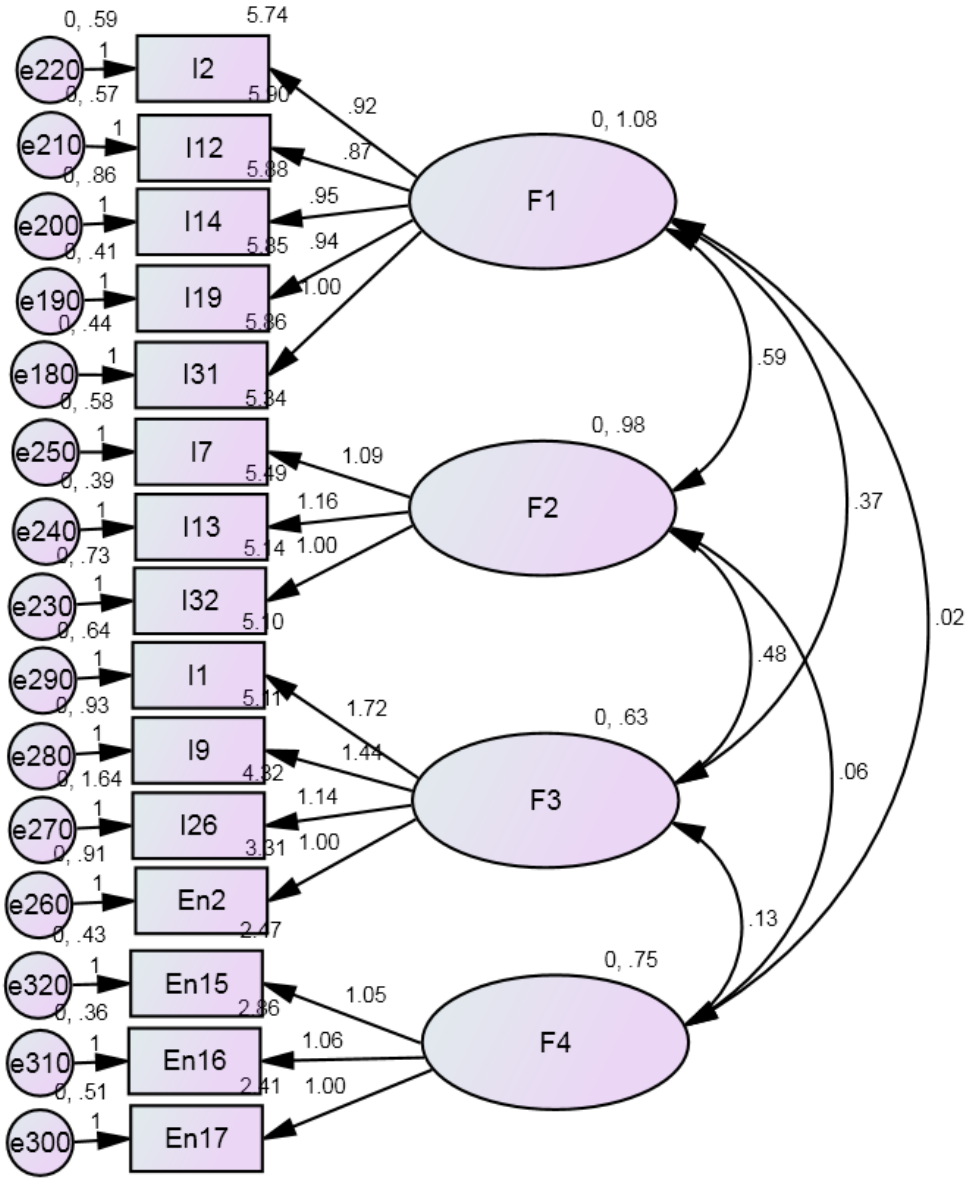

Figure 4.5: College Student Identity Model 2

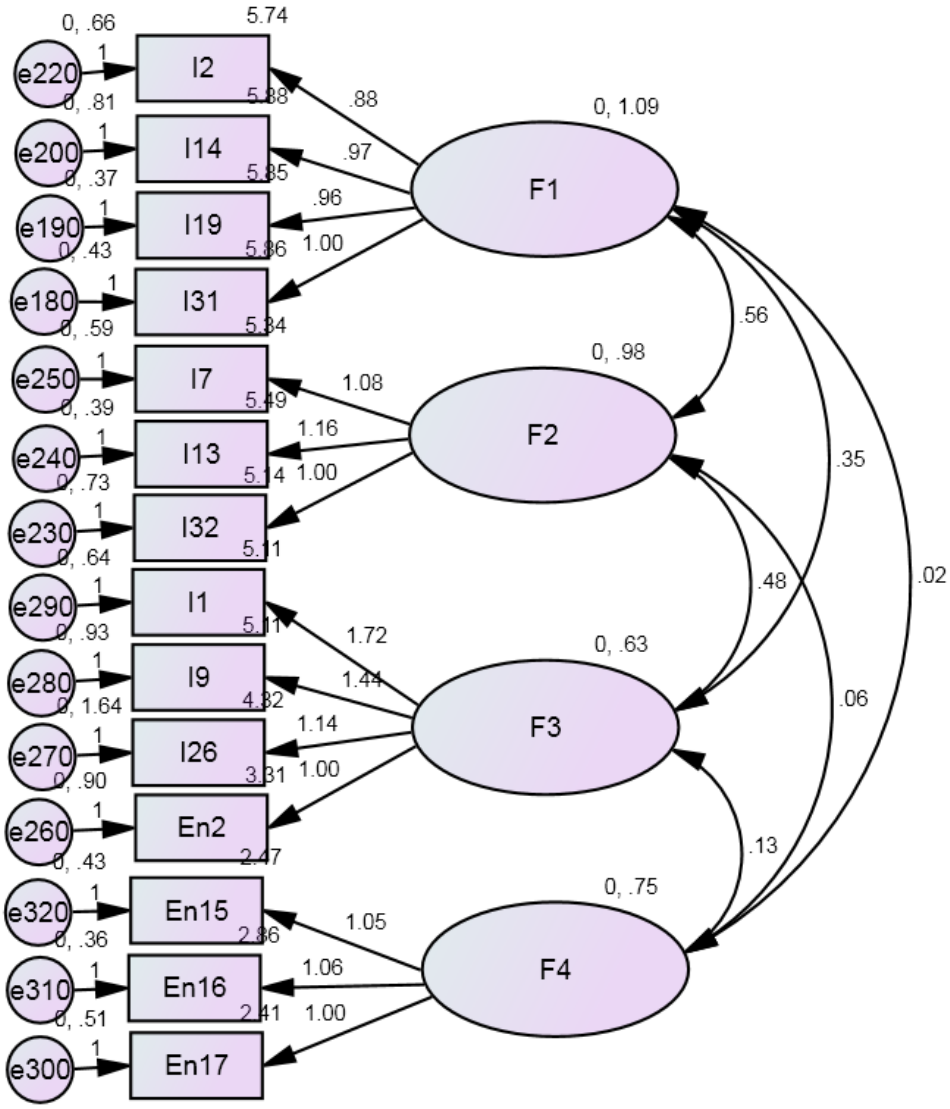

Figure 4.6: College Student Identity Model 3

correlating at a .000 level of significance. The correlations between the overall factors of academic success, social, involvement, and teacher interaction were weak to moderate with some being statistically significant (see Table 4.3).

Table 4.3: College Student Identity Correlation Matrix

	Academic Success	**Social**	**Involvement**	**Mean**	**Standard Deviation**
Academic Success				29.26	5.15
Social	.510**			16.01	3.45
Involvement	.347**	.501**		17.90	4.65
Teacher Interaction	.012	.070	.202**	7.74	2.94

**. Correlation is significant at the 0.01 level (2-tailed)

Discussion

The faculty verbal messages scale lost three items from the EFA in the CFA: “You will be successful.” “Your paper/presentation needs to be better organized.” and “You seem to be having problems with the assignment.” Given that these items were the lowest loading items in each dimension for the EFA, the loss of these items, while not expected, is understandable. The college student identity scale lost two EFA items in the CFA: “Communicate with teachers in class,” and “Communicate with teachers outside of class about nonacademic topics.” These

were two of the three lowest loading items from the teacher interaction dimension of identity for the EFA. "Communicate with teachers in class" had the lowest loading. However, "Communication with teachers outside of class about nonacademic topics" loaded higher than "Discuss course ideas, concepts, or topics with a teacher outside of class" in the EFA, yet the latter item was not lost in the CFA. Looking at the items more closely, the reasoning becomes apparent as the three items that were not lost in the CFA are all centered on academic success while the two that were lost were not academically focused. While this suggests a high similarity between academic success items and teacher interactions, correlation analysis reveals that the relationship between these two factors is weak.

In addition to the correlation results of academic success and teacher interaction, the high moderate to high correlation of social identity with academic success and involvement identities is noteworthy. Previous research indicates a strong correlation between academic success and involvement (Chickering & Reisser, 1993; Klem & Connell, 2004). Interestingly, the results of this study suggest that the relationship between academic success and social identities is stronger. Traditionally, it is assumed that more social students ignore or place less importance on academic endeavors, but this study suggests that such an assumption may not be valid. An explanation could be that if a student's social network is one that places academics as a priority, the student is more likely to place significance on academic success as well. On the other hand, involvement is more highly correlated with social identity than academic success identity; those who are more social are also more likely to be involved in extracurricular and co-curricular activities. While the three identities are correlated in such a way as to establish these as separate factors within a unifying construct, teacher interaction is problematic. Taken together, it is clear that college student identities are more complex and complicated than may have been assumed.

As a whole, this instrument partially supports previous research. The faculty verbal messages scale supports previous research on messages, specifically in regards to the two main dimensions of messages, confirming and disconfirming (Goodboy & Myers, 2008). One conclusion that can be drawn from these results is that students do not view any of the messages as neutral. Instead, each is judgmental or evaluative in nature. If, on the other hand, such messages would be perceived as neutral, it may be that either faculty are not using nonjudgmental messages or they are not perceived as doing so as all of the potentially neutral items were eliminated during the EFA.

This study also supports previous identity research by providing additional evidence for college student identity as a multidimensional construct (Dollinger, 1995). In conclusion, this study reduced the faculty verbal messages scale to 15 items and confirmed the 2-factor solution. Moreover, the college student identity scale was reduced to 15 items confirming the four-factor solution. These scales, along with the original learner empowerment and learning indicators measures, were used the final study, which explored the proposed models of interactional theory of identity (ITI).

Chapter 5: Hypothesis and Research Question Analyses

The purpose of this study was to explore the interrelationships of college student identity, faculty verbal messages, and student outcomes. Based on the exploratory and confirmatory factor analyses, college student identity consists of four identities: academic success, social, involvement, and teacher interaction. Based on the exploratory and confirmatory factor analyses, faculty verbal messages consist of confirming and disconfirming messages. Student outcomes explored in this study were learner empowerment, which consists of impact, meaningfulness, and competence, and learning indicators. Correlation matrices for the research questions and hypotheses are available in Tables 5.1 and 5.2 respectively.

Research Question 1

RQ1 explored the relationship between faculty verbal messages and college student identities. Confirming messages were found to relate to all four identities at traditional levels of statistical significance: academic success [$r(548) = .393$, $p = .000$], social [$r(549) = .321$, $p = .000$], involvement [$r(548) = .272$, $p = .000$], and teacher interaction [$r(545) = .209$, $p = .000$]. However, these correlations are weak to moderate. Similar results were found for disconfirming messages and college student identities, as the correlations were once again weak to moderate but were negative and statistically significant for three out of the four identities: academic success [$r(555) = -.382$, $p = .000$], social [$r(557) = -.162$, $p = .000$], and involvement [$r(557) = -.097$, $p = .022$]. Teacher interaction, on the other hand, was found to have a weak, positive relationship with disconfirming messages at traditional levels of statistical significance [$r(553) = .122$, $p = .004$].

Research Question 2

RQ2 explored the relationship between college student identities and learner empowerment. Overall, learner empowerment was found to have a weak to moderate, positive correlation with the four college student identities at traditional levels of statistical significance: academic success [$r(522) = .368$, $p = .000$], social [$r(523) = .287$, $p = .000$], involvement [$r(523) = .195$, $p = .000$], and teacher interaction [$r(519) = .263$, $p = .000$]. Similar results were found for the three factors of empowerment. Impact was found to have a weak, positive correlation with the four college student identities at traditional levels of statistical significance: academic success [$r(543) = .292$, $p = .000$], social [$r(543) = .233$, $p = .000$], involvement [$r(543) = .176$, $p = .000$], and teacher interaction [$r(539) = .282$, $p = .000$]. Meaningfulness was also found to have a weak, positive correlation with the four college student identities at traditional levels of statistical significance: academic success[$r(554) = .273$, $p = .000$], social [$r(556) = .203$, $p = .000$], involvement [$r(555) = .115$, $p = .007$], and teacher interaction [$r(550) = .208$, $p = .000$]. Competence was found to have a weak to moderate, positive correlation with the four college student identities at traditional levels of statistical significance: academic success [$r(559) = .357$, $p = .000$], social [$r(560) = .230$, $p = .000$], involvement [$r(561) = .152$, $p = .000$], and teacher interaction [$r(556) = .085$, $p = .050$]. Therefore, while empowerment and the factors of empowerment are positively related to college student identity, the relationship is not strong.

Research Question 3

RQ3 explored the relationship between college student identities and learning indicators. Once again, weak to moderate positive correlations were found between learning indicators and the four college student identities at traditional levels of statistical significance: academic success [$r(556) = .240$, $p = .000$], social [$r(556) = .200$, $p = .000$], involvement [$r(557) = .206$, $p = .000$],

Table 5.1: Correlation Matrix of Variables for Research Questions

	Academic Success	Social	Involvement	Teacher Interaction	Mean	St. Dev.
Confirming	.393**	.321**	.272**	.209**	50.72	9.86
Disconfirming	-.382**	-.162**	-.097*	.122**	26.27	9.02
Empowerment	.368**	.287**	.195**	.263**	174.44	32.04
Indicators	.240**	.200**	.206**	.383**	35.47	8.98

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

Table 5.2 Correlation Matrix of Variables for Hypotheses

	Confirming	Disconfirming	Mean	Standard Deviation
Empowerment	.435**	-.095*	174.44	32.04
Indicators	.364**	-.023	35.47	8.98

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

and teacher interaction [$r(545) = .383$, $p = .000$]. While learning indicators were determined to be positively related to college student identities, the degree to which the relationship exists is not strong.

Hypothesis 1

H1 predicted a positive relationship between confirming messages and learner empowerment. As predicted, a positive relationship was found between confirming messages and overall learner empowerment [$r(506) = .435$, $p = .000$] as well as between confirming messages and the three factors of learner empowerment: impact [$r(528) = .387$, $p = .000$], meaningfulness [$r(539) = .416$, $p = .000$], and competence [$r(542) = .351$, $p = .000$]. Moreover, each positive relationship was both moderate and statistically significant.

Hypothesis 2

H2 predicted a negative relationship between disconfirming messages and learner empowerment. As predicted, a negative relationship was found between disconfirming messages and overall learner empowerment [$r(515) = -.095$, $p = .030$] as well as between disconfirming messages and the three factors of learner empowerment: impact [$r(535) = -.032$, $p = .456$], meaningfulness [$r(547) = -.069$, $p = .107$], and competence [$r(551 = -.124$, $p = .004$]. While each of the relationships was inverse, only competence and disconfirming messages produced a statistically significant relationship, albeit weak.

Hypothesis 3

H3 predicted a positive relationship between confirming messages and learning indicators. As predicted, a positive relationship was found between confirming messages and learning indicators [$r(539) = .364$, $p = .000$]. Moreover, the positive relationship was both moderate and statistically significant.

Hypothesis 4

H4 predicted a negative relationship between disconfirming messages and learning indicators. As predicted, a negative relationship was found between disconfirming messages and learning indicators [$r(548) = -.023$, $p = .599$]. However, similar to the results of disconfirming messages in relation to learner empowerment, the relationship was found to be negative and almost non-existent, not resulting in traditional levels of statistical significance.

Taken together, the results of the hypothesis testing support the predicted relationships between faculty verbal messages and outcomes. However, while the directionality of the relationship was evidenced, the relationships were not found to be strong.

Interactional Theory of Identity Model Testing

In addition to the above relationships, this study set out to explore two proposed models of Interactional Theory of Identity (ITI). The first model poses identity as a moderating variable between verbal messages and two outcomes: learning indicators and learner empowerment (see Figure 5.1). A moderating variable is one that "affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (Baron & Kenny, 1986, p. 1174). Moreover, the moderating relationship can be linear, quadratic, or step.

A path analysis, testing one path at a time, was used to test the two causal models being compared in this study to create an overall model (see Appendix G). A path analysis was considered meaningful if the coefficient produced was greater than or equal to .05 (Land, 1969). Application of this criterion resulted in the elimination of several paths in each model. Based on the one-path-at-a-time testing procedure, each of the paths met the coefficient criterion with the exception of one, disconfirming messages to teacher interaction identity. Therefore, in testing

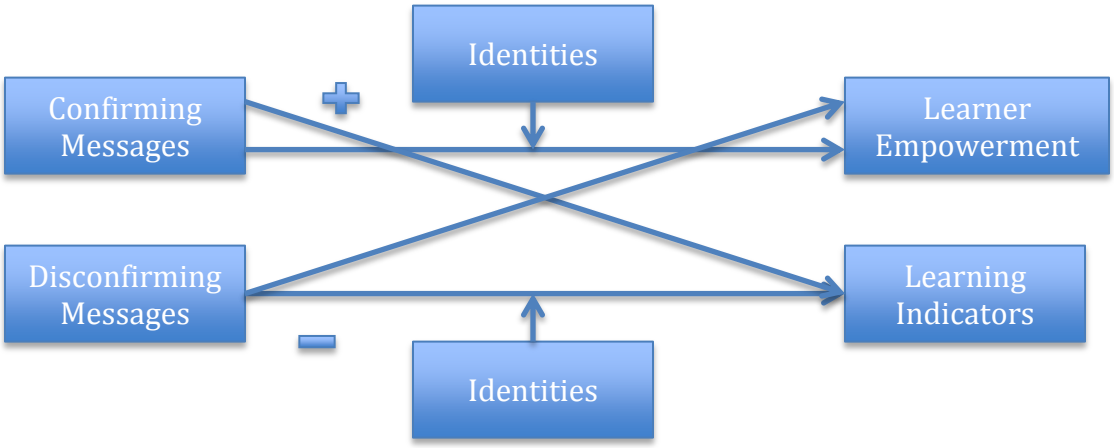

Figure 5.1 Interactional Theory of Identity (ITI) Model A

the overall model, this path was removed (see Figure 5.2).

Model A testing showed that the coefficient criterion was met for each of the paths in the model. However, the fit indices did not meet the necessary criteria as the NFI and CFI did not exceed .9 and the RMSEA was not below .08 [x^2(N = 576) = 536.16, CMIN/DF = 41.24, p = .000, RMSEA = .27, NFI = .53, CFI = .53]. In comparison, the second model poses identity as the antecedent variable to verbal messages and the two outcomes of learner empowerment and learning indicators (see Figure 5.3).

Based on the one-path-at-a-time testing procedure, disconfirming messages to learning indicators was the only path not to meet the coefficient criterion (see Appendix H). Therefore, this path was removed for overall model testing (see Figure 5.4). Model B testing revealed that the coefficient criterion was still met for each of the paths in the model with the exception of involvement identity to disconfirming messages, which was removed from the model and retested. Each of the paths in the model was found to meet the coefficient criterion. However, the fit indices did not meet the necessary criterion as the NFI and CFI did not exceed .9 and the

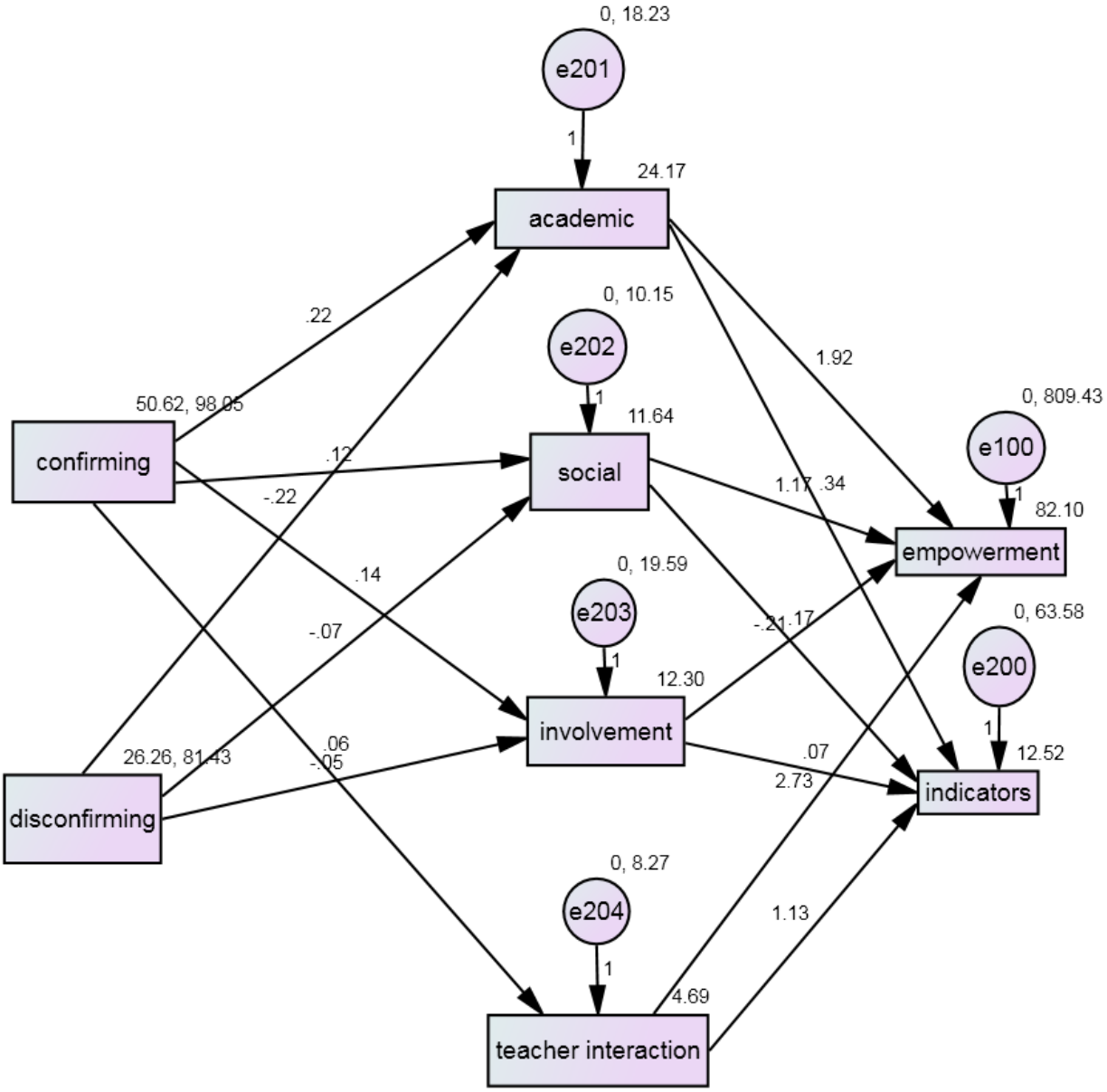

Figure 5.2: Identity as Moderator Model

RMSEA was not below .08 [x^2(N = 576) = 361.60, CMIN/DF = 30.13, p = .000, RMSEA = .23, NFI = .69, CFI = .69].

Overall, results of the path analysis testing did not provide evidence to support the two proposed models of interactional theory of identity. Therefore, *post hoc* analysis was conducted to further explore possible models of interactional theory of identity (ITI). For such analysis, it was important to consider not only the statistical results of the analysis, but also the theory and assumptions foundational to additional models.

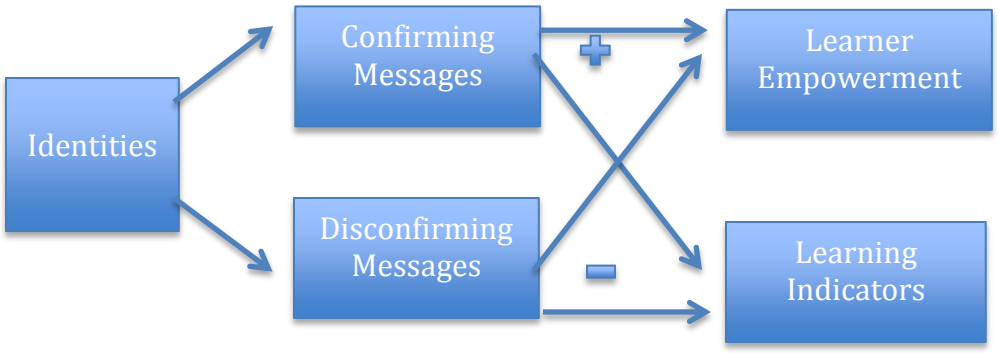

Figure 5.3: Interactional Theory of Identity (ITI) Model B

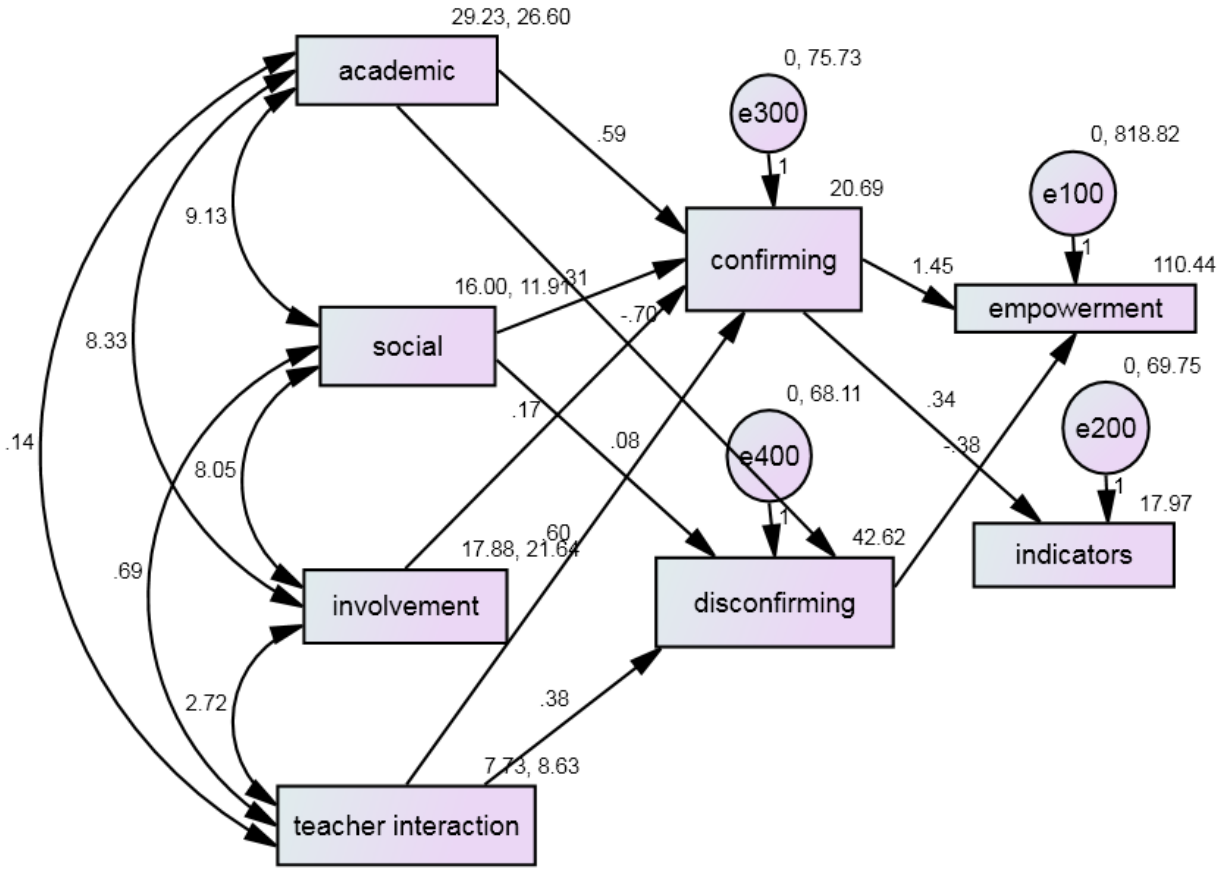

Figure 5.4: Identity as an Antecedent Model

Chapter 6: *Ad Hoc* Testing

Based on the results of the previous analysis as a unit, two main issues were identified. First, identity and messages appear to have a stronger relationship to learner empowerment than to learning indicators. It may be that empowerment and indicators are not equivalent outcomes. It could be that students who feel more empowered produce stronger learning indicators. Second, teacher interaction identity was not as highly correlated with the other identities as academic success, involvement, and social were with each other. It may be that teacher interaction is not an identity, but rather a communication behavior, meaning that teacher interaction is a combination of verbal and nonverbal behaviors that are enacted in addition to being impacted by college student identity, faculty verbal messages, and outcomes. Additionally, the dimensions of identity may not be antecedents or moderators as a unit. College students, it is assumed, have some level of academic success identity given their status and role. So, it could be that academic success identity should be separated from involvement identity and social identity, serving as either the antecedent or the moderator. A final option is that academic success identity is predicted by social identity and involvement identity, confirming and disconfirming messages, and outcomes of learner empowerment and learning indicators. It is with these issues in mind that four optional models were initially explored.

Inequivalent Outcomes Model

The first revised model explores learner empowerment and learning indicators as differential outcomes. Given that the relationship between messages and learner empowerment was stronger, learner empowerment was selected as a precursor to learning indicators in the linear model. College student identities remained the antecedent variable leading into faculty verbal messages (see Figures 6.1 and 6.2). Similar to previous results, the path between

involvement identity and disconfirming messages did not meet the coefficient criterion. This path was removed and the model was retested. Each of the paths in the model was found to meet the coefficient criterion. However, the fit indices did not meet the necessary criteria [x^2(N = 576) = 130.35, CMIN/DF = 10.86, p = .000, RMSEA = .13, NFI = .89, CFI = .89].

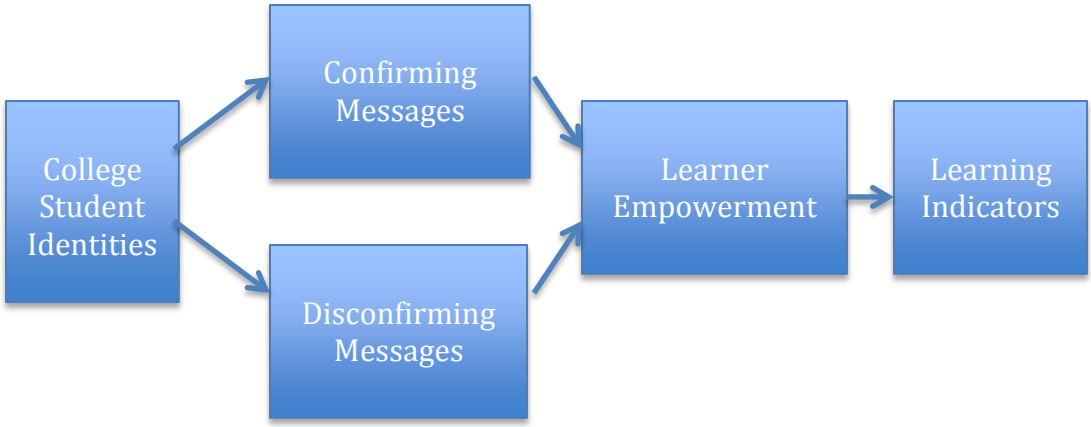

Figure 6.1 Interactional Theory of Identity (ITI) Model C

Identity as Antecedent and Moderator Model

The second revised model explores college student identities as both antecedent and moderating variables. Given that each of the participants is a student at a 4-year university, it is assumed that each has, at least to some degree, an academic success identity. Therefore, academic success identity is separated from the other identities. Moreover, given the problematic nature of teacher interaction identity in previous testing, it was removed from the model (see Figure 6.3A). For testing purposes, academic success identity is the antecedent variable for version one with social and involvement identities as the moderating variables. For version two, social and involvement identities serve as the antecedents with academic success identity as the moderator. Learner empowerment and learning indicators were given equal status as outcomes in this model.

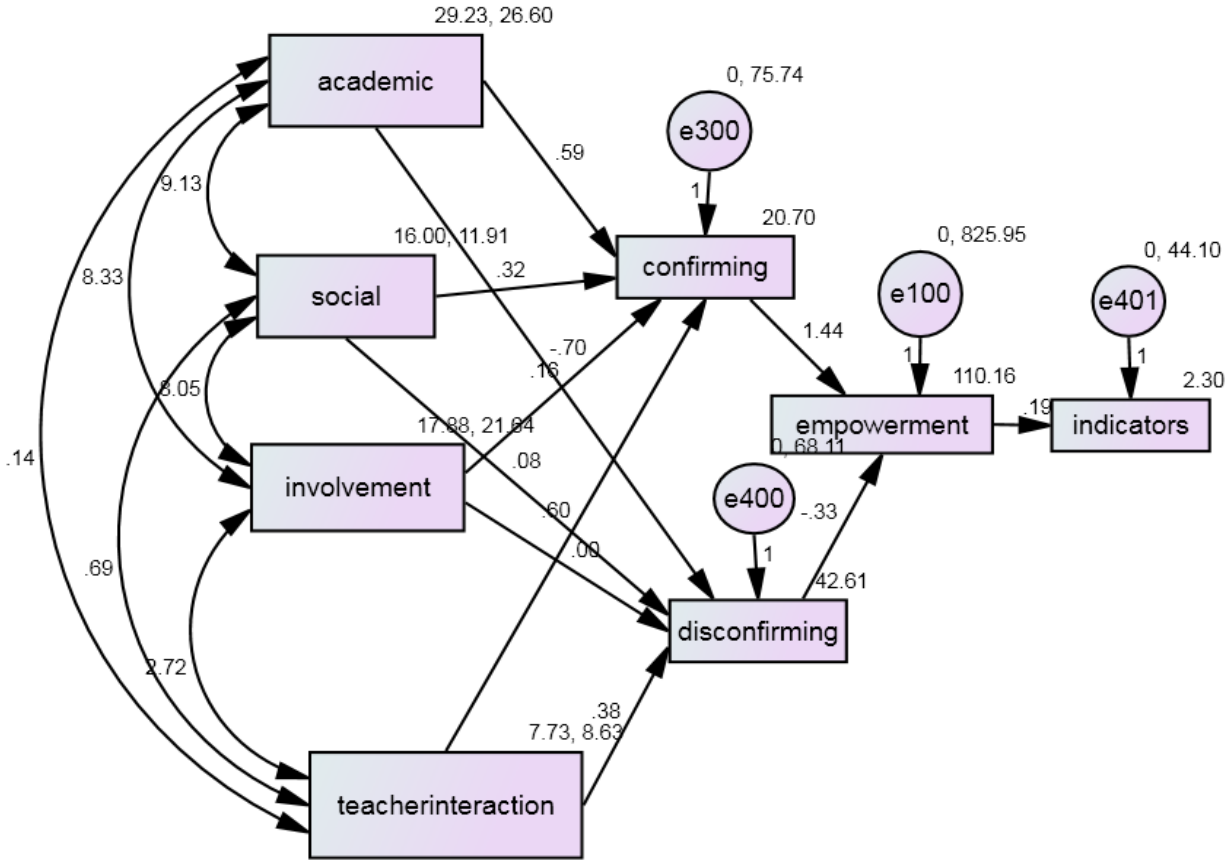

Figure 6.2: Interactional Theory of Identity (ITI) Model Revision Test 1

Each of the paths in the model, version one, met the coefficient criterion, so no paths needed to be removed (see Figures 6.3B and 6.3C). However, the fit indices did not meet the necessary criteria, NFI and CFI exceeding .9 and RMSEA being below .08 [x^2(N = 576) = 636.74, CMIN/DF = 57.89, p = .000, RMSEA = .32, NFI = .38, CFI = .38].

Similar to previous results, in version two the path between involvement identity and disconfirming messages did not meet the coefficient criterion. This path was removed and the model was retested. Each of the paths in the model was found to meet the coefficient criterion. However, the fit indices did not meet the necessary criteria [x^2(N = 576) = 465.01, CMIN/DF = 35.77, p = .000, RMSEA = .25, NFI = .55, CFI = .55].

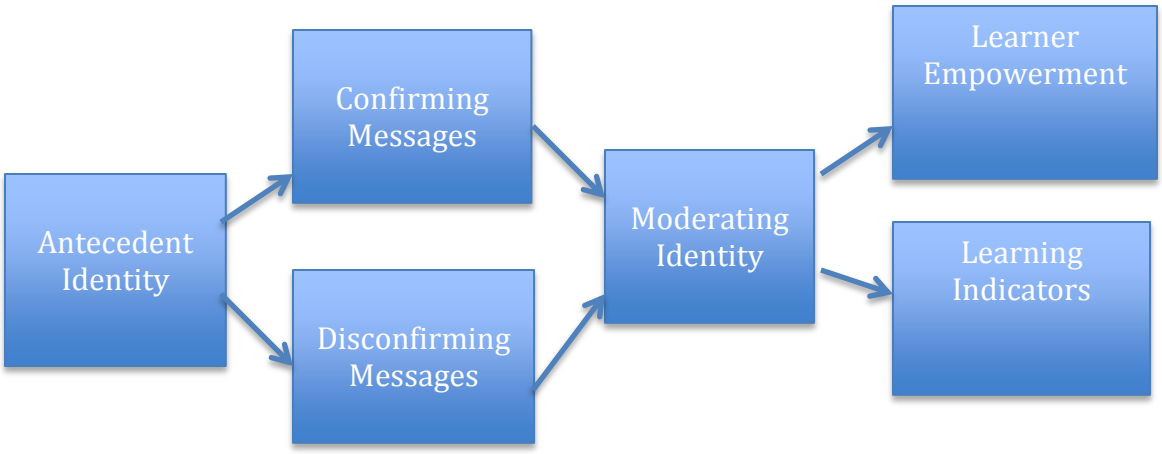

Figure 6.3A: Interactional Theory of Identity (ITI) Model D

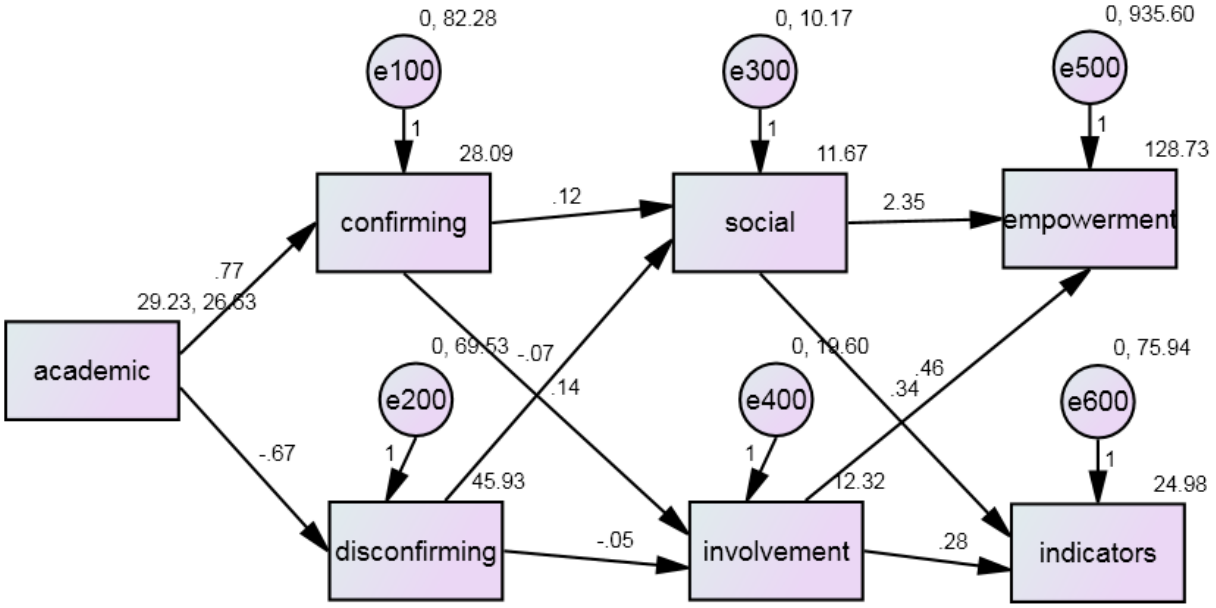

Figure 6.3B: Interactional Theory of Identity (ITI) Model Revision Test 2

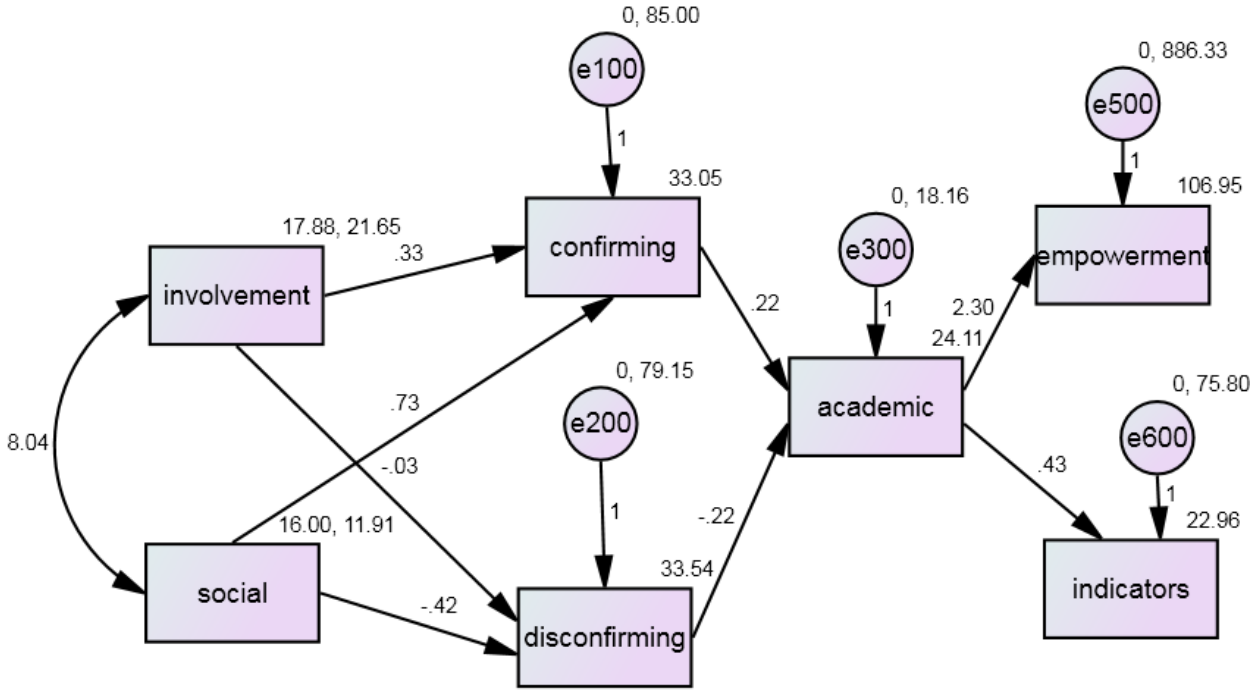

Figure 6.3C: Interactional Theory of Identity (ITI) Model Revision Test 3

Identity as Antecedent and Outcome Model

The third revised model explores college student identity as antecedent and outcome variables with messages and learning as the moderators (see Figure 6.4A). Similar to the previous model, academic success identity is separated from social and involvement identity, teacher interaction identity is removed, and two versions are tested. First, academic success identity is tested as the antecedent variable with social and involvement identity as the impacted identities with faculty verbal messages and outcomes as the moderators. In the second version, social and involvement identity serve as the antecedent variables with academic success identity as the impacted variable. Again, faculty verbal messages and outcomes serve as moderators.

This model revealed several paths that did not meet the coefficient criterion: involvement identity to disconfirming messages, disconfirming messages to learning indicators, and learning indicators to academic success identity (see Figure 6.4B). Therefore, these paths were removed and the model was retested. Each of the paths in the retested model was found to meet the coefficient criterion. However, the fit indices did not meet the necessary criteria, NFI and CFI greater than .9 and RMSEA less than .08 [x^2(N = 576) = 507.91, CMIN/DF = 39.07, p = .000, RMSEA = .26, NFI = .51, CFI = .51].

This model revealed several paths that did not meet the coefficient criterion: learner empowerment to social identity, learner empowerment to involvement identity, and learning indicators to social identity (see Figure 6.4C). Therefore, these paths were removed and the model was retested. Each of the paths in the retested model was found to meet the coefficient criterion. However, the fit indices did not meet the necessary criteria, NFI and CFI greater than .9 and RMSEA less than .08 [x^2(N = 576) = 356.34, CMIN/DF = 39.59, p = .000, RMSEA = .26, NFI = .51, CFI = .51].

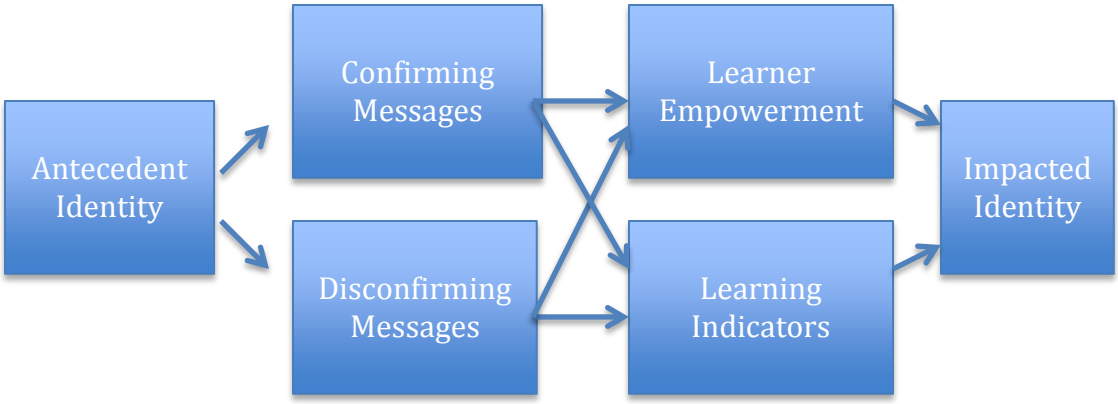

Figure 6.4A: Interactional Theory of Identity (ITI) Model E

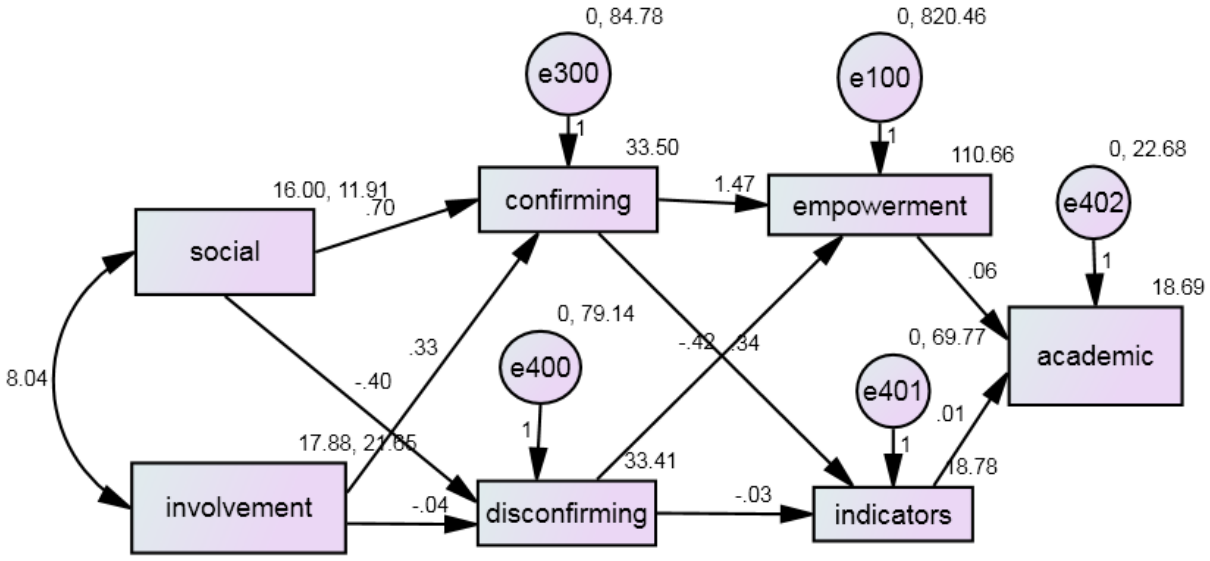

Figure 6.4B: Interactional Theory of Identity (ITI) Model Revision Test 4

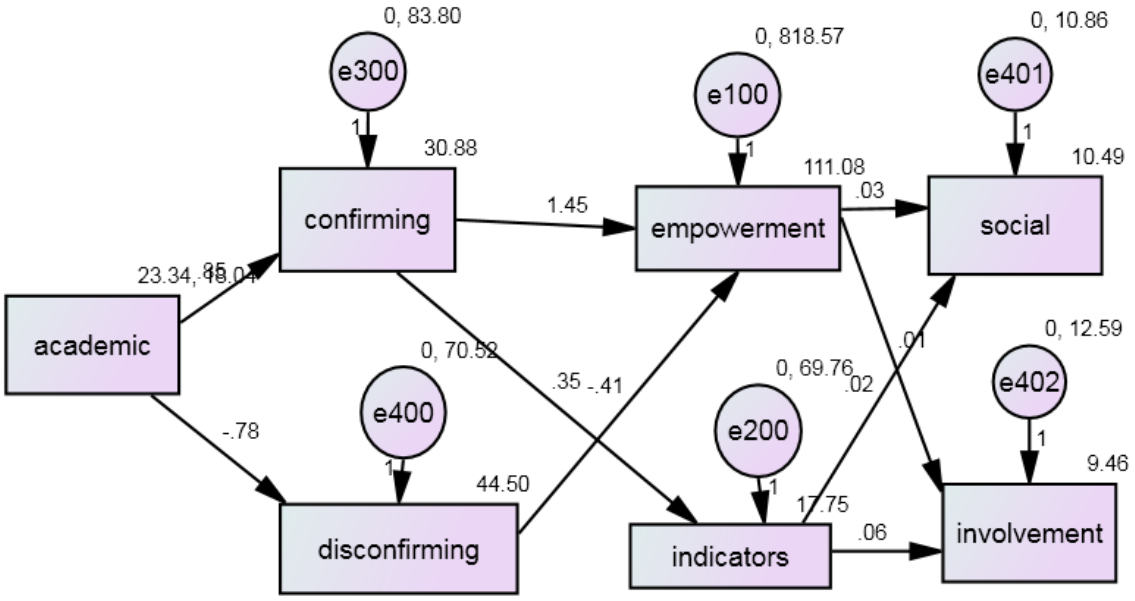

Figure 6.4C: Interactional Theory of Identity (ITI) Model Revision Test 5

Based on the results of the four tested optional models, the model with learner empowerment as a predictor of learning indicators was the most successful. However, it is still uncertain as to whether teacher interaction is an issue. Therefore, two additional models were tested.

Antecedent Identity and Inequivalent Outcomes Model

The first model places academic success, social, and involvement identities as the antecedent variables leading into faculty verbal messages with learner empowerment and learning indicators as inequivalent outcomes (see Figure 6.5). This model, which tested learner empowerment as a predictor of learning indicators but removed teacher interaction from the identity component, revealed that all paths met the coefficient criterion, but only two of the three fit criteria were met (see Figure 6.6). Because the involvement to disconfirming path was problematic in many of the previous models and held the lowest loading, that path was removed. The model was retested revealing that the path from social identity to disconfirming messages

did not meet the coefficient criterion, so it was also removed. The retest resulted in coefficients that met the criterion and met two of the three fit criteria. NFI and CFI was above .9 but RMSEA was not below .08 [x^2(N = 576) = 58.74, CMIN/DF = 5.34, p = .000, RMSEA = .09, NFI = .94, CFI = .95].

Antecedent and Outcome Identity and Inequivalent Outcomes Model

The second model (see Figure 6.7A), which tested learner empowerment as a predictor of learning indicators, which in turn predicted teacher interaction identity, revealed that all paths met the coefficient criterion. However, only two of the three fit criteria were met (see Figure 6.7B). Because the involvement to disconfirming path was problematic in many of the previous models and held the lowest loading, that path was removed. The model was retested revealing that the paths did meet the coefficient criterion; however, the fit indices did not meet the other criteria, specifically in regards to RMSEA [x^2(N = 576) = 95.93, CMIN/DF = 6.00, p = .000, RMSEA = .09, NFI = .92, CFI = .93] (see Figure 6.7C).

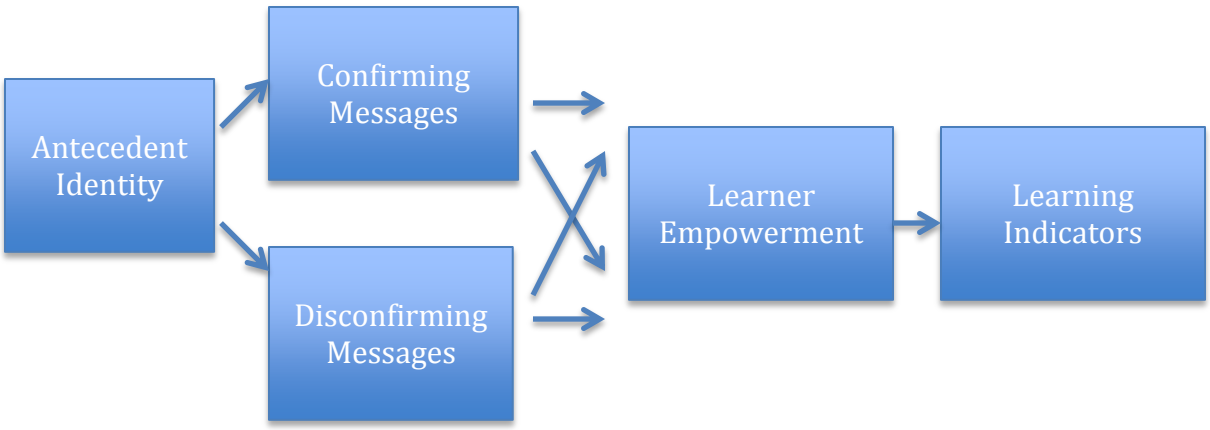

Figure 6.5: Interactional Theory of Identity (ITI) Model F

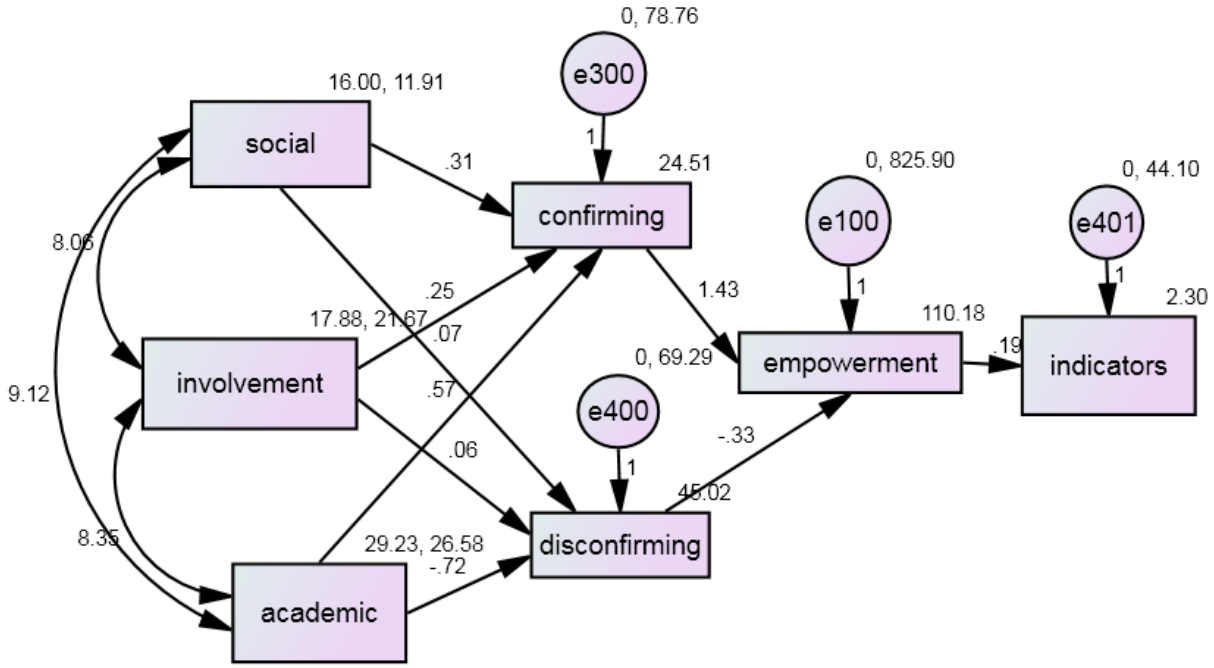

Figure 6.6: Interactional Theory of Identity (ITI) Model Revision Test 6

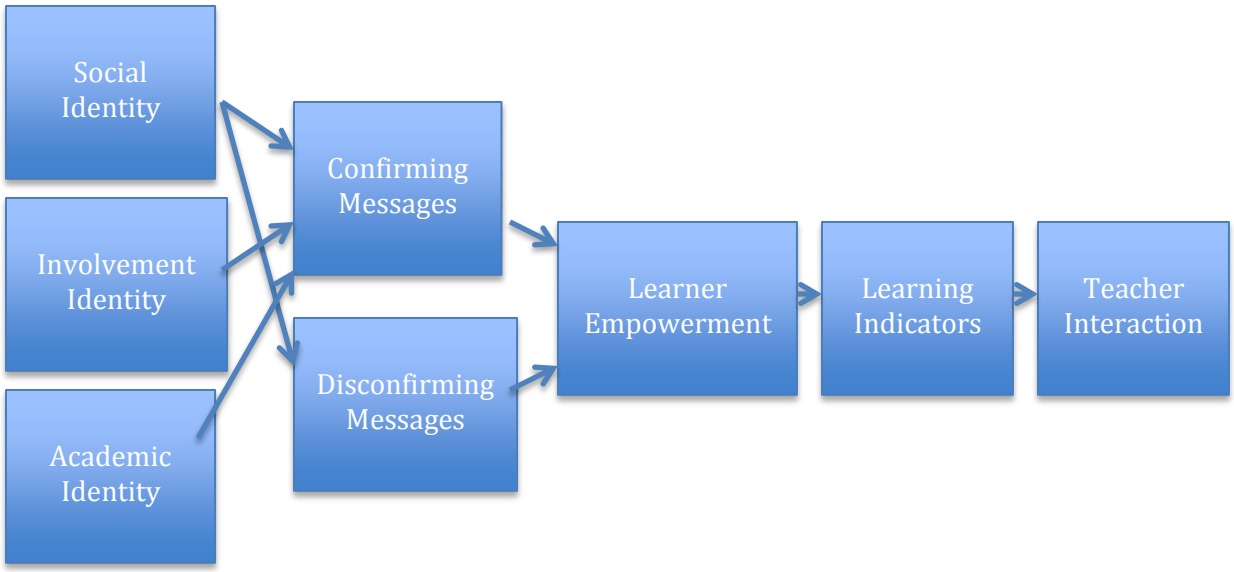

Figure 6.7A: Interactional Theory of Identity (ITI) Model G

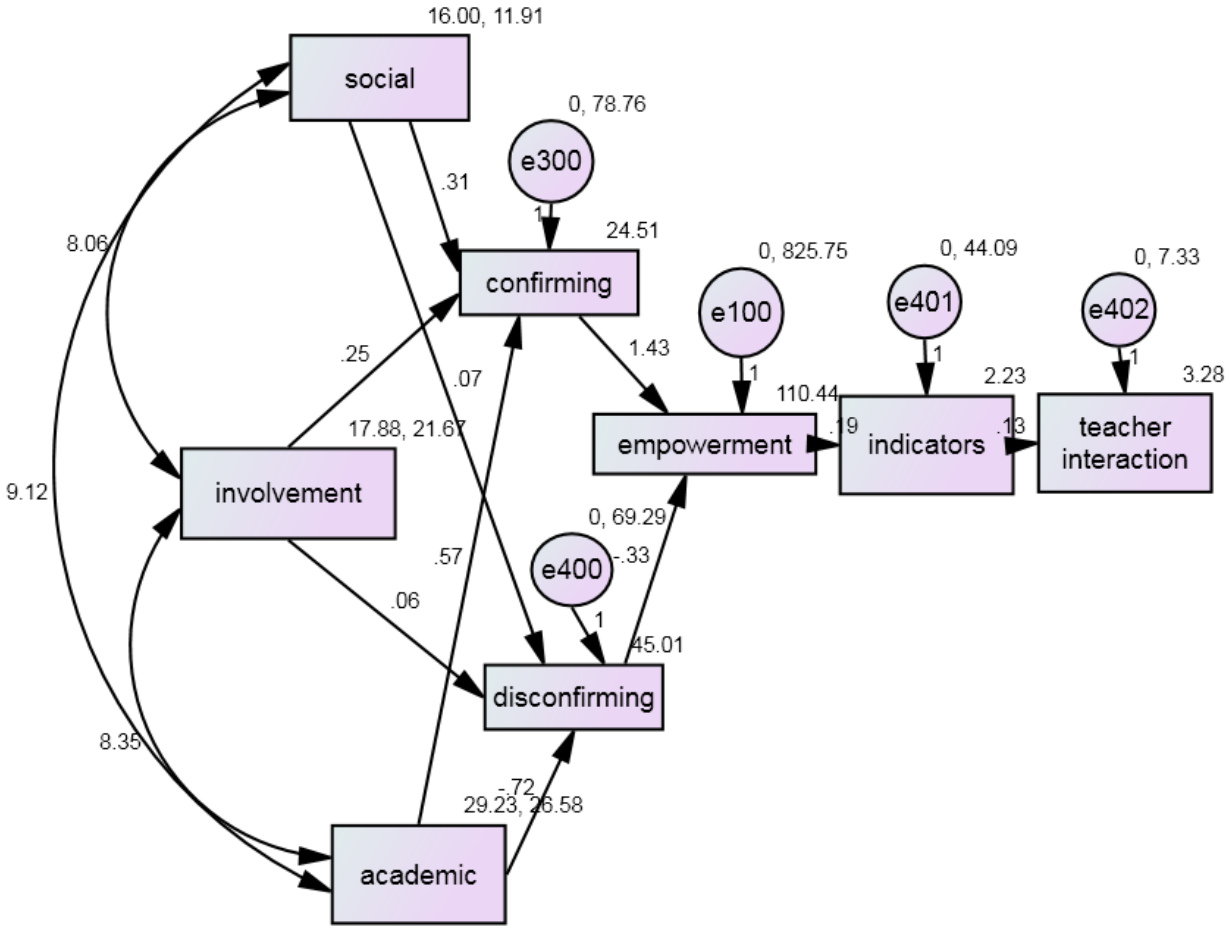

Figure 6.7B: Interactional Theory of Identity (ITI) Model Revision Test 7

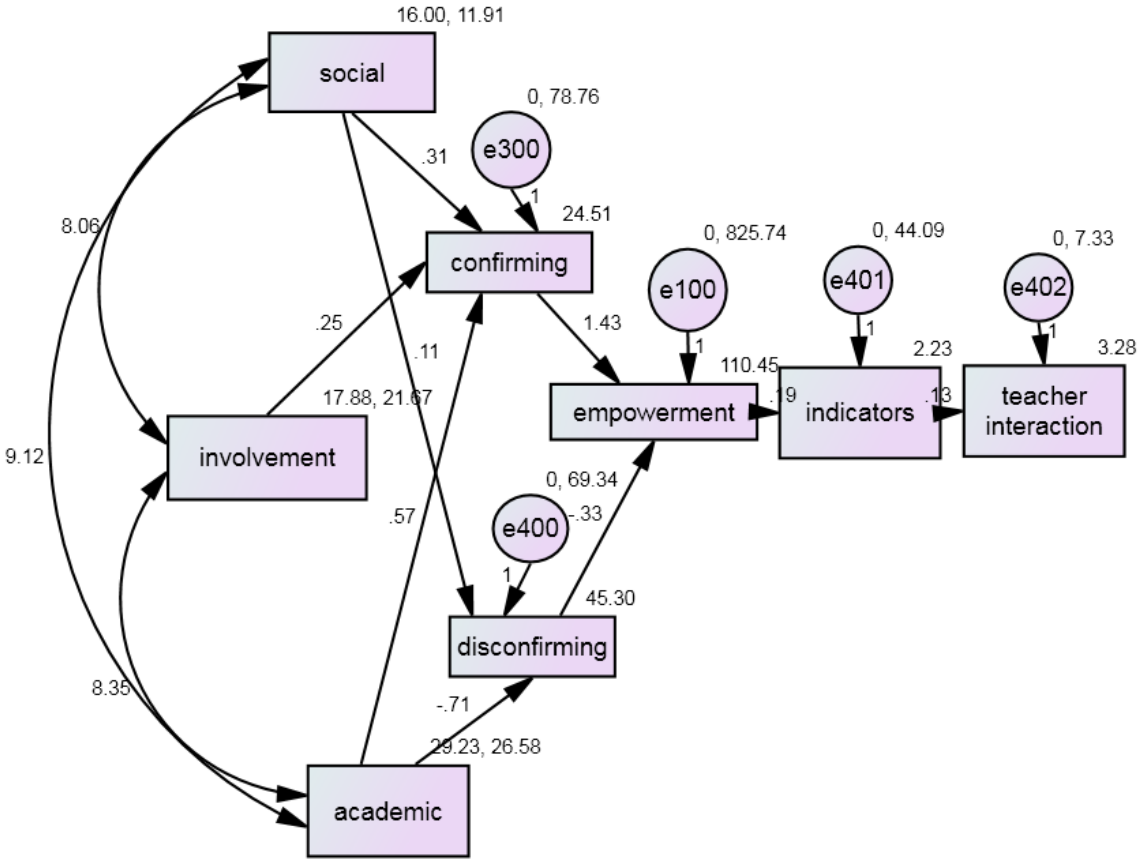

Figure 6.7C: Interactional Theory of Identity (ITI) Model Revision Test 8

Final Model of Interactional Theory of Identity (ITI)

Based on the results of the tests of these two models, a final model was constructed and combined the conclusions drawn from the testing (see Figure 6.8). First, college student identity is separated with social, involvement, and academic success as the antecedent identities and teacher interaction identity as the impacted identity. Second, the model places learner empowerment and learning indicators as inequivalent outcomes, as previously described. Lastly, the fit criteria were problematic when social and involvement identities led to disconfirming messages; therefore, these paths were removed. The final model (see Figure 6.9) resulted in coefficients that met the coefficient criterion and met all fit criteria [x^2(N = 576) = 82.87, CMIN/DF = 4.87, p = .000, RMSEA = .08, NFI = .93, CFI = .94].

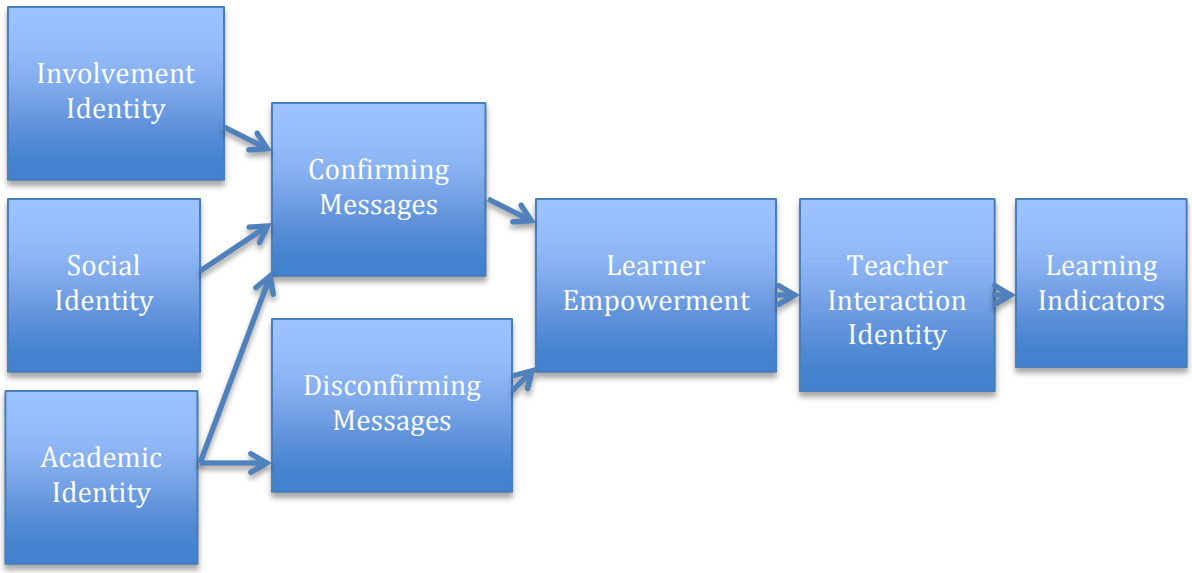

Figure 6.8: Final Model for Interactional Theory of Identity (ITI)

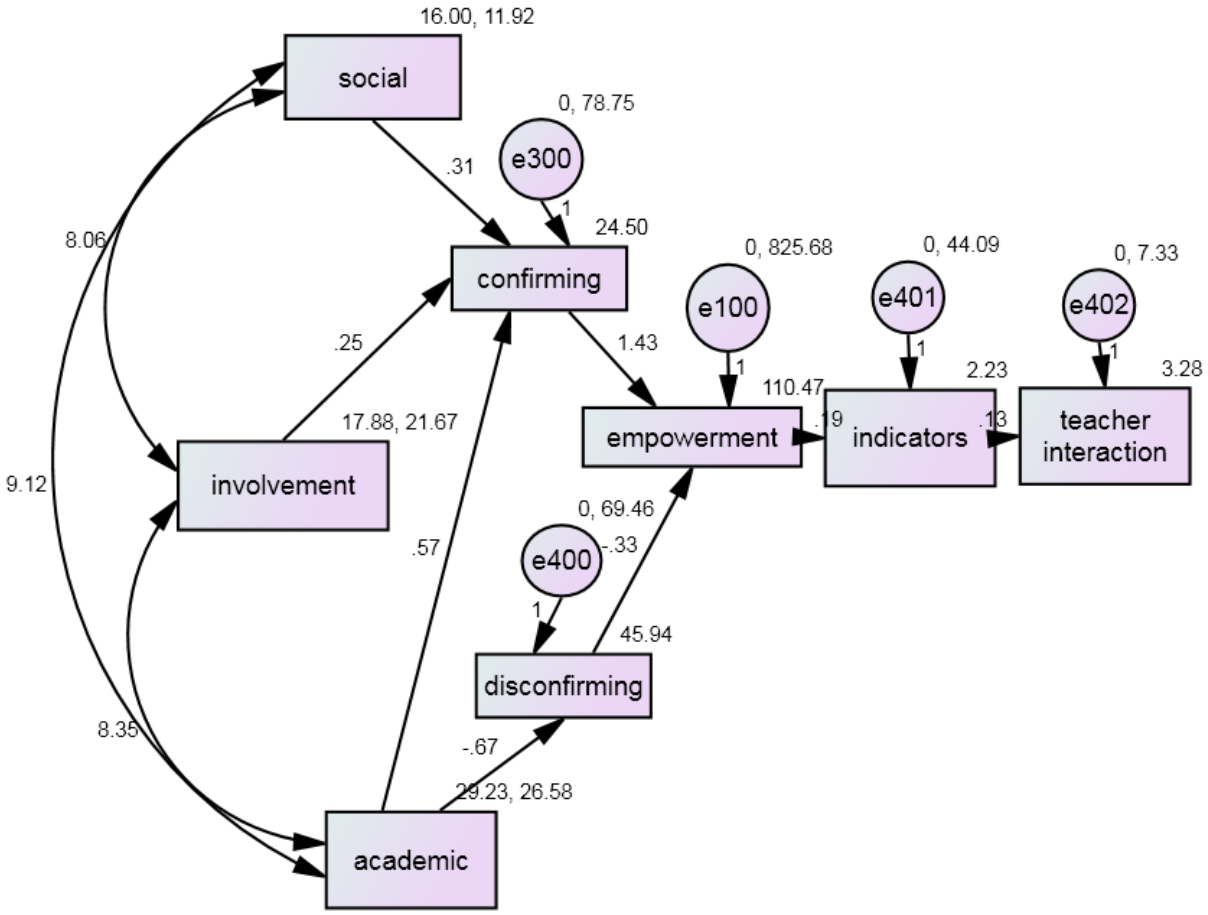

Figure 6.9: Final Model of Interactional Theory of Identity (ITI) Revision Test

Chapter 7: Discussion

This series of studies was conducted to create college student identity and faculty verbal messages scales in addition to exploring the relationships among college student identities, faculty verbal messages, and student outcomes (learner empowerment and learning indicators). The initial step was to produce potential scale items based on a review of literature. An EFA was conducted to explore the item factoring to determine which worked and which should be removed. The next step was to conduct a CFA to validate the item loadings and factor structures. These results were then used in a test of the hypotheses and research questions along with an exploration of a model for the interactional theory of identity (ITI). This chapter discusses the *ad hoc* models, implications, and contributions of the study as a whole.

Research Questions and Hypotheses

RQ1: Faculty Verbal Messages and College Student Identities

Confirming messages were found to be related to each of the college student identities. While the strongest relationship was found between confirming messages and academic success identity as would be expected, the other relationships are surprising. Based on the results, confirming messages have more impact on the social identity than involvement identity. This was surprising because, given that these are both positive relationships, one would assume that teacher messages would more strongly impact getting involved on campus than spending time with friends. Even more surprising was that the weakest relationship was found between confirming messages and teacher interaction. It would be assumed that such messages would encourage students to engage with faculty and find the messages impactful. However, this study suggests that confirming messages may not have the impact on the student-teacher interaction, or relationship, that previous research suggests (Frymier & Houser, 2000).

With regard to disconfirming messages, three of the four anticipated relationships were found with disconfirming messages being negatively related to academic success, involvement, and social identities. Interestingly, teacher interaction identity was found to have no relationship with disconfirming messages. This relationship was unexpected as it would be anticipated that disconfirming messages would inversely relate to teacher interaction. For example, if students are receiving critical messages from teachers, it would seem that they would be less likely to engage in the interaction and would be less likely to find that relationship and identity to be important as a means of self-preservation. When students are incapable of preserving their identities, an identity crisis occurs, so avoiding internalization of those disconfirming messages allows student to avoid identity crises (Hogg et al., 1995). The other possible explanation may be that students tune out the disconfirming messages because they have heard them so many times that the messages are no longer processed or internalized though they are heard, which is likely to lead to no relationship between disconfirming messages and teacher interaction.

RQ2: College Student Identities and Learner Empowerment

The relationship between college student identities and learner empowerment was weak to moderate. The strongest relationship was found between academic success identity and learner empowerment of all of the measured identities. This relationship makes sense because learner empowerment is, at its core, more focused on academic success identity than the other identities. On the other hand, the weakest relationship was found between involvement identity and learner empowerment. This would suggest that while students are empowered in the classroom, the empowerment may not go beyond the classroom walls. More specifically, students may be involved, or have an involvement identity, regardless of empowerment and vice versa.

RQ3: College Student Identities and Learning Indicators

The relationship between college student identities and learning indicators was weak to moderate. Teacher interaction identity was found to have the strongest relationship with learning indicators. This would suggest that students who place importance in the teacher-student relationship produce higher indicators of learning, which supports previous research (Frymier & Houser, 1999). Academic success identity was found to have the weakest relationship with learning indicators. This would suggest that the importance students place on academic success has little to no bearing on learning indicators and vice versa.

Hypotheses: Messages and Outcomes

The relationship between confirming messages and learner empowerment was not as strong as predicted, yet the relationship was more supportive of previous literature than the relationship between learner empowerment and disconfirming messages (Frymier, Shulman, & Houser, 1996). Unlike confirming messages, the relationship between disconfirming messages and overall learner empowerment was weak and negative, but not as strong as one would anticipate. These results suggest that confirming messages are more impactful in regards to learner empowerment than disconfirming messages. This could be because such positive messages encourage student engagement and performance. Disconfirming messages may not be communicated to the same degree as confirming messages; students may not process or place importance on disconfirming messages; or disconfirming messages may have such a negative impact on students that they feel completely deflated and come to feel they possess no shared power in the classroom environment.

Similar to the results on learner empowerment, the relationship between confirming messages and learning indicators was moderate but positive. Additionally, disconfirming

messages were found to be minimally and negatively related to learning indicators. Results suggest that once again confirming messages are more impactful in regards to learning indicators than disconfirming messages, likely for similar reasons. Taken together, confirming messages are more impactful on learner empowerment than learning indicators and confirming messages are more impactful to both outcomes than disconfirming messages.

Final Interactional Theory of Identity Model

Results of this study support the well-received notion that identity is a multidimensional construct (Dollinger, 1995). While the number of dimensions of identity was fewer than anticipated, the study provides support for the claim that identity is not singular (Hecht, et al., 2005). Moreover, it was hypothesized that teacher interaction would be an identity in and of itself, but such a proposition was not supported in this study. It may be that teacher interaction is not an identity but a behavior to be enacted. Based on the communication theory of identity, identities are enacted (Hecht, 2002; Hecht, et al., 2005). For example, student-athletes who have a high GPA may enact a social identity to a greater extent in an attempt to protect their academic success identity, or divert attention away from it. Identities are fluid and are different for different people. Therefore, it may be possible to understand identity by measuring the enactments, or behaviors, that align with specific identities, which may help account for the fact that teacher interaction, while contributing to identity, takes a back seat. Moreover, if teacher interaction is in fact a behavior instead of an identity, the interrelationships between messages, behaviors, and expectations of behaviors would be of interest (Smith & Ellis, 2001). Taken together, if teacher interaction is a set of behaviors rather than an identity, then the types and amounts of behaviors need to be explored and added to the model.

According to Frymier and Houser (2000), interpersonal communication between teachers and students has two primary dimensions: relational/personal communication and delivery of content/expertise. These dimensions are supported through evidence from the EFA and CFA testing. For example, one category of messages is centered on the student's abilities and characteristics. Another category of messages is centered on the understanding and mastery of course content. Results of this study support the notion that language positions people in relation to one another in that confirming messages of faculty positively impact learner empowerment (Davie, et al., 1999; Langenhove, et al., 1999). However, given that the strength of the relationships between messages to outcomes were moderate at best, other types of messages need to be explored in the pursuit of the types of messages that may make a difference, therefore strengthening the relationship between messages and outcomes.

Theoretical Implications

Results of this study also provide evidence to support interactional theory of identity (ITI), specifically the foundational assumption that communication interactions are central both to identity development and one's resulting behaviors. Students enter into communicative interactions with separate dimensions of identity that are impacted by an instructor's confirming and disconfirming messages, a process that results in both self-perceptions and behaviors.

While ITI was supported by the results in this study, the support was limited given that not all of the propositions for the theory were tested specifically or individually. Future research should more fully explore the individual propositions of the theory and test the theory as a whole using each of the theoretical propositions. Such studies are identified in the future research section of this dissertation.

Despite this limitation, three key findings are important to understanding interactional theory of identity (ITI) and the resulting model. First, college student identity is multidimensional and these identities serve as antecedents to faculty verbal messages. Second, antecedent identities are more important to confirming messages than disconfirming messages. While some identities, such as social and involvement, are only related to confirming messages, academic success identity is tied to both confirming and disconfirming messages. Given the nature of the messages explored in this study, the tie to academic success identity but not social and involvement identity makes sense. Had the verbal messages been from peers, the reverse may have occurred. Third, messages impact learner empowerment in anticipated ways. Confirming messages are positively related to learner empowerment while disconfirming messages are negatively related to learner empowerment. Learning indicators are impacted by learner empowerment; learning indicators impact teacher interaction identity, which the study reveals is likely an enacted behavior instead of an identity.

Practical Implications

Instructional communication centers on studying communicative factors in the process of teaching and learning in educational settings. This is important because "the educational environment is a giant, multifaceted communication event composed of a variety of communication encounters" (Nyquist & Booth, 1977, p. 13). This study targets messages delivered in the teaching-learning process and explores how such messages impact and are impacted by college student identities in addition to exploring how such messages impact student outcomes.

Similar to superior-subordinate relationships in workplace contexts (Stohl, 1986), teachers tend to focus on disconfirming messages when providing student feedback than

confirming messages, such as, “This is what you did not do, and this needs be to fixed.” Feedback messages tend to be less in quality and quantity as they are likely more generic in nature, such as “You did a good job on this assignment.” Taking the time to provide those confirming messages can go a long way to positively impacting student perceptions of empowerment and ultimately their learning. Those confirming messages can also lead to more teacher-student interactions where potential problems can be alleviated before they negatively impact learning.

Understanding these interrelationships is important to understanding and accounting for the teaching-learning process, information critical to assessment and accreditation practices. Because this process is central to major factors addressed in accreditation documents through assessment, such as retention, graduation rates, student satisfaction, and enhanced learning, to name a few (Astin, 1977, 1993; Leigler, 1997; & More et al., 1996), the results of this study serve as a catalyst for research focused on students as individuals and how individual identities of students are important to understanding the outcomes and outputs associated with the teaching-learning process. Such information can be used by faculty, administrators, accrediting agencies, and other stakeholders in higher education.

Limitations and Future Research

One limitation of this study is the large number of first-year students that make up the sample. Given the first-year status, such students may have not come to understand the importance of the student-teacher relationship in the college experience. Moreover, because these students are predominately enrolled in general education courses, the motivation and opportunity for interaction and involvement may be minimal in comparison to upper-level courses within the student’s chosen major.

While survey methodology is widely used and accepted in social scientific research, such quantitative methods can limit the depth to which identities, messages, and outcomes can be explored and understood. Focus groups, interviews, and classroom observations would likely bolster understanding of the interactions as a clearer picture of the context would likely add clarity to the relationships within the model as well as the scales utilized to measure the constructs.

Beyond the survey method itself, generally speaking, the administration of the EFA and CFA surveys may have been problematic as both groups were presented with the same number of items for each construct. Traditionally, items would have been removed for the CFA administration based on the results of the EFA administration. However, given the time and institutional review board constraints of this dissertation study, administration of an original and modified instrument was not possible. Therefore, future research should retest the CFA instrument utilizing only the items that remain based on the EFA instrument to minimize the testing factors that may be impacted by the unnecessary items introduced. Moreover, the validity of the instruments needs to be further tested. For example, the college student identity scale should be tested against other identity measures (Berzonsky, 1985; Marcia, 1966). While there are currently no other faculty verbal messages measures, the scale could be explored in relation to categories of measures, like those of Jaasma and Koper (2001): course-related inquiries, self-disclosure, small talk, seeking advice, asking for favors, and sharing ideas.

Future research should explore changing identities by administering the college student identity scale as a pre- and post-test design. While some may have one strong identity that sticks, others are more like chameleons and more heavily influenced by the environment or social situation. Moreover, to better understand the enactment of identity, the scale should be

paired with items that explore use of time (e.g., “How much time do you spend a week studying?”; “How many classes did you attend/miss this semester?”; “Of how many clubs/organizations are you a member?”) as well as with perceptions of their identities (e.g., “I see myself as a good student.” “I am a very social person.” “I see myself as a leader.”). This research would serve as a step to testing propositions four, five, eight, and nine of ITI: identities are expressed in interactions and define roles, identities are emergent and enacted in interactions, identities are hierarchically ordered meanings attributed to the self as an object in a social situation, and behaviors are an enactment of identities.

Future research should explore outcomes beyond learner empowerment and learning indicators. For example, higher education administrators may be interested in how the interconnections of identity and messages impact critical accreditation factors such as retention, graduation rates, enrollment numbers, etc. Faculty may be interested in how the interconnections of identity and messages impact student motivation to perform in the classroom or engage in future communication interactions with the instructor in and out of class.

In regards to the outcomes measures used in this study, in both cases the reliabilities and factor structures were inconsistent. Future research should further explore the factor structures of these measures. For example, as Frymier et al. (1996) note, as designed, the learner empowerment scale leads to clumping at the mean as a unidimensional scale given that students could be low in one dimension, high in another dimension, and moderate in the third, or any number of combinations that push the data toward the mean. Future research should further test learner empowerment as a unidimensional and three-dimension structure. Broadly speaking, researchers traditionally report the reliabilities of scales used in a study while not reporting, and likely not testing, the factor structure of previously established measures. Future research should

take a closer look at whether it is acceptable to simply conduct studies based on reliability scores without running factor analyses given that high reliabilities do not mean that the scales are necessarily valid.

Further exploration into the sub-dimensions of confirming and disconfirming messages is needed as such sub-dimensions were not accounted for in this study. Such research could be paired with further testing of ITI. For example, the wording of such messages could not only be specific to the sub-dimensions (Cissna & Sieberg, 1981; Sieberg, 1985), but could also reflect the properties of identities (Hecht, 1993) to test proposition six of ITI that identities have individual, social, and communal properties. In addition, such research could be a step toward testing proposition seven of interactional theory of identity (ITI) that identities have both content and relationship levels of interpretation.

Outcomes, messages, and identities should also be studied more closely in relation to student socialization. According to Kranstuber et al. (2012, p. 47), "In addition to identifying the types of messages students receive that help them make sense of the college experience, it is important to understand how these messages influence student success." Tied closely to the student socialization process is the concept of expectations. For example, what expectations do students have of the course, the teacher, and potential interactions with the teacher? How do these expectations impact the students' behaviors in and out of the classroom in relation to interactions with teachers? Finally, how do these expectations and processes impact the interrelationships among identities, messages, and outcomes?

In regards to the model of interactional theory of identity (ITI), several paths of research are made available based on the results of this study. For example, this study does not address the possibility of changing identities based on the messages received, similar to the proposition

of Jung et al. (2004) that messages can confirm/strengthen, neutralize, or disconfirm one's identity. As noted by Burke (2006), conflicts among multiple identities and conflicts between identities and behaviors are among the reasons that identities change. Similarly, the changing nature of identity based on messages should be compared to research on changing identities and self-motives, including accuracy of identity, valence of identity, and consistency of identity (Gregg at al., 2011).

Future research should explore identity dimensions of students over time to see if the dimensions of the identity remain the same and if the dimensions are strengthened, weakened, or neutralized. This would additionally test proposition one of interactional theory of identity (ITI), which posits identities are both enduring and changing as well as proposition two that identities are affective, cognitive, and behavioral. Three possible paths diverge from such research. First, future research should explore student-teacher interactions, centered on identity and messages, in relation to identity crises (Hogg, Terry, & White, 1995). For example, if the messages received by students disconfirm dimensions of their identity, do their identities change or does it even matter? Such research could be combined with research on identity commitment (Burke & Reitzes, 1991). Second, future research should compare student behaviors, or outcomes, as a result of the faculty messages and the identity dimensions that result from faculty messages (Comello, 2009). Third, future research should explore the role of dialectical tensions in regards to sense of identity based on messages received from faculty (Hecht, 1993).

The model could also be extended to more fully explain construct interactions associated with interactional theory of identity (ITI). For example, what role does student motivation or locus of control play in the current model? Are extrinsically motivated students more likely to engage in teacher interactions and are they more heavily impacted by the messages they receive

in such interactions? This would be a step toward addressing proposition three that identities are a source of expectations and motivations. Other constructs of interest would be self-concept and self-esteem as these constructs are often explored in instructional communication contexts in relation to outcomes (Bluic et al., 2011, Heppner & Kernis, 2011). Moreover, how do these interrelationships impact enhanced learning?

Such questions lead to another line of research necessary to more fully explore interactional theory of identity (ITI), a line that is centered on the teacher-student interactions themselves. What are these actual interactions? What makes them satisfying or dissatisfying? Does the satisfaction of the interaction impact student learning outcomes, student behaviors, or college student identity? The same questions can be explored in relation to constructs such as teacher clarity, credibility, and attraction, to name a few.

Contributions

One of the key take-aways from this study is the overlapping and multiple identities of college students. Given that student samples are the most commonly used participant pools for university research, it is important to understand that these students have differences beyond the demographics that are almost always recorded. The differences in how they see themselves and how they see themselves in relation to others may impact research more than previously assumed. As noted earlier, an understanding of these multiple identities has both theoretical and practical implications.

The next key take-away from this study is the need to examine, or re-examine, factor structures of instructional instruments. As evidenced here, it may not suffice to assume that preexisting measures factor across and within study contexts in similar ways. This study suggests that researchers should go beyond relying on reliability estimates for the instructional

scales, even those commonly used, and instead also examine the factor structures that result from testing. While the factors may have worked at the time of measurement development, the same factors may not hold up a decade or two later.

A third key take-away is the need to examine learning outcomes as potentially building upon each other rather than being a vertical stack in our models. This vertical stack suggests that the outcomes are equal, which may or may not be the case. Given the plethora of outcomes studied in instructional contexts, a clearer understanding of outcomes in relation to one another should be a goal when re-examining preexisting instructional models in addition to creating new ones.

Overall, this study demonstrates that the relationships among college student identities, instructor messages, and learning outcomes are more complex and varied than previously anticipated. For example, the relationship between messages and college student identity appears to be too complex to generalize that confirming messages have a positive impact on college students. This study serves as a catalyst for research on the relationships among identity, messages, and outcomes, an area that appears to be ripe for study and of critical importance to instructional contexts.

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Appendices

Appendix A

Pre-test Instrument

A. Please identify the oral communication course in which you are enrolled.
   a. 210: Public Speaking
   b. 240: Business and Professional Communication

II. Indicate how strongly you agree with each of the following statements regarding your time as a **college** student. (1-strongly disagree to 7-strongly agree)

1. My involvement in co-curricular clubs and/or activities is an important part of who I am as a student.
2. My dedication to my studies in an important part of who I am as a student.
3. My personal beliefs are not important part of who I am as a student.
4. My interactions with other students impact how I see myself as a student.
5. The messages that I receive from my teachers impact how I see myself as a student.
6. Getting professional experience while I am in college does not impact how I see myself as a student.
7. Spending time with my friends is an important part of who I am as a student.
8. If I do poorly on a test/assignment, it does not impact how I see myself as a student.
9. My involvement in professional/academic/athletic clubs/activities are an important part of who I am as a student.
10. My political affiliation is an important part of who I am as a student.
11. Being a leader is an important part of who I am as a student.
12. My future plans/career goals are an important part of who I am as a student.
13. My relationships with my friends are an important part of who I am as a student.
14. Failing a class would not impact how I see myself as a student.
15. Being in charge of campus activities or group projects is an important part of who I am as a student.
16. My relationships with my teachers impact how I see myself as a student.
17. My culture/ethnic heritage is an important part of who I am as a student.
18. My interactions with other students is not important to who I am as a student.
19. My grades impact how I see myself as a student.
20. My community involvement and volunteer experience is an important part of who I am as a student.
21. My interactions with my teachers impact how I see myself as a student.
22. Leadership is not an important part of who I am as a student.
23. My involvement in internships/work impacts how I see myself as a student.
24. Spending time with my friends is not an important part of who I am as a student.
25. What my teachers say to me has no impact on how I see myself as a student.
26. Serving as an officer in campus organizations or captain of my team is an important part of how I see myself as a student.
27. My professional plans are not an important part of who I am as a student.
28. The messages I receive from my friends do not impact how I see myself as a student.
29. My campus involvement has no impact on how I see myself as a student.
30. My religion is an important part of who I am as a student.

31. My academic success is an important part of who I am as a student.
32. Interactions with my friends impact how I see myself as a student.
33. My culture/ethnic heritage has no impact on how I see myself as a student.
34. Being a leader has no impact on how I see myself as a student.
35. The relationships I have with my teachers do not impact how I see myself as a student.

III. How often do you do the following in a typical 7-day week? (1-None to 5-Very frequently)

1. Prepare for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities.)
2. Participate in co-curricular activities (organizations, campus publications, student government, sorority or fraternity, etc.)
3. Participate in intercollegiate or intermural sports
4. Working for pay
5. Do community service or volunteer work
6. Relax and socialize (time with friends, video games, TV or videos, etc.)
7. Keep up with friends online
8. Attending religious services
9. Attending cultural events
10. Attending events that address important social, economic, and political issues
11. Attending campus activities and events
12. Attending parties and other social events
13. Communicating with faculty in class
14. Communicating with faculty outside of class about nonacademic topics
15. Talk about career plans with a teacher
16. Discuss your academic performance with a teacher
17. Discuss course ideas, concepts, or topics with a teacher outside of class
18. Attempt to have a course assignment or overall course grade raised

IV. Identify the initials of the teacher of the class you just left.

A. In what college does that teacher teach?
    a. Agricultural Sciences and Natural Resources
    b. Architecture and Design
    c. Arts and Sciences
    d. College of Business
    e. Communication and Information
    f. Education, Health, and Human Sciences
    g. Engineering
    h. Nursing
    i. Social Work
    j. Other

B. What kind of class is it?
    a. In my major

b. In my minor
c. A general education requirement
d. An elective
e. A requirement for my major outside of the department

IV. Thinking specifically about the teacher whose initials appear above, indicate how you personally would be impacted if the above teacher said this to you. (1-Very negatively to 7-Very positively, with 0 as person would never say)

1. What's done is done; all you can do is move forward.
2. You're capable of more than you think you are.
3. You did not follow the guidelines of the assignment.
4. We are a team.
5. A bad grade can be used as a motivational tool.
6. I just want to see you striving to perform better.
7. You will be successful.
8. I can tell you put forth a lot of effort.
9. Always remember who you are.
10. Your education is what you make out of it.
11. Don't stress over grades.
12. You raised some interesting questions.
13. In your next draft, try to focus on developing more convincing arguments.
14. Be yourself.
15. Your paper/presentation needs to be better organized.
16. You have a very original approach to the assignment.
17. You need to reevaluate your priorities.
18. You get what you put in.
19. The only limits to your own achievements are the ones you put of yourself.
20. You seem bored in class.
21. You are a hard worker.
22. I don't think this is the right major for you.
23. You seem to have clear goals for yourself.
24. You have improved tremendously.
25. The smartest do not always have the most success; it's the people who want it the most.
26. You can do whatever you put your mind to.
27. Just remember what you are in school for.
28. This is interesting! Keep up the good work.
29. Your arguments are convincing.
30. You seem preoccupied with your social life.
31. You can be whatever you want to be.
32. You've got the rest of your life to be wild and crazy.
33. It is important that you attend classes.
34. You are a good student.
35. Your paper/presentation did not make sense.
36. You are lazy.
37. Believe in yourself.

38. These ideas show keen insight into the problem.
39. You seem to be having problems with the assignment.
40. You are responsible for your own learning.
41. You do not have the ability to succeed in this class.
42. Spend more time studying than drinking.
43. Quit making excuses.
44. You are a failure.
45. Please proofread! Your grammar and spelling are poor.
46. Nowadays you have to go to graduate school to get a great job.
47. You seem to have no idea what you are doing.
48. You need to work on your time management.
49. You will never make it as a college student.
50. I believe in you.

V. Demographics

1. Identify the college that best describes your current program of study:

    a. Agricultural Sciences and Natural Resources
       Architecture and Design
    b. Arts and Sciences
    c. College of Business
    d. Communication and Information
    e. Education, Health, and Human Sciences
    f. Engineering
    g. Nursing
    h. Social Work
    i. Other: _____

2. How many times have you changed your major since arriving at college?

3. What year in school are you?

    a. First year
    b. Sophomore
    c. Junior
    d. Senior

4. What is your biological sex?

    a. Male
    b. Female

5. What is your age? _____

Appendix B

Resulting items from Messages EFA

1. We are a team.
2. You will be successful.
3. Always remember who you are.
4. Be yourself.
5. Your paper/presentation needs to be better organized.
6. You need to reevaluate your priorities.
7. You seem bored in class.
8. I don’t think this is the right major for you.
9. You seem to have clear goals for yourself.
10. You can do whatever you put your mind to.
11. You seem preoccupied with your social life.
12. You can be whatever you want to be.
13. Your paper/presentation did not make sense.
14. Believe in yourself.
15. You seem to be having problems with the assignment.
16. Please proofread! Your grammar and spelling are poor.
17. You need to work on your time management.
18. I believe in you.

Appendix C

Resulting items from Identity EFA

1. My involvement in co-curricular clubs and/or activities is an important part of who I am as a student.
2. My dedication to my studies is an important part of who I am as a student.
3. Spending time with my friends is an important part of who I am as a student.
4. My involvement in professional/academic/athletic clubs/activities are an important part of who I am as a student.
5. My future plans/career goals are an important part of who I am as a student.
6. My relationships with my friends are an important part of who I am as a student.
7. Failing a class would not impact how I see myself as a student.
8. My grades impact how I see myself as a student.
9. Serving as an officer in campus organizations or captain of my team is an important part of how I see myself as a student.
10. My academic success is an important part of who I am as a student.
11. Interactions with my friends impact how I see myself as a student.
12. Participate in co-curricular activities (organizations, campus publications, student government, sorority for fraternity, etc.)
13. Communicate with teachers in class.
14. Communicate with teachers outside of class about nonacademic topics.
15. Talk about career plans with a teacher.
16. Discuss your academic performance with a teacher.
17. Discuss course ideas, concepts, or topics with a teacher outside of class.

Appendix D

Final Instrument

I. Please identify the oral communication course in which you are enrolled.

a. 210: Public Speaking
b. 240: Business and Professional Communication

II. Identify the initial of the teacher of the class you had most recently before completing this survey.

III. Indicate your level of agreement with the following statements in reference to the course that aligns with the teacher referenced above from 1-Strongly Disagree to 7-Strongly Agree.

1. I have the power to make a difference in how things are done in this class.
2. I have a choice in the methods I can use to perform my work.
3. My participation is important to the success of this class.
4. I have freedom to choose among options in this class.
5. I can make an impact on the way things are run in this class.
6. Alternative approaches to learning are encouraged in this class.
7. I have the opportunity to contribute to the learning of others in this class.
8. I have the opportunity to make important decisions in this class.
9. I cannot influence what happens in this class.
10. I have the power to create a supportive learning environment in this class.
11. My contribution to this class makes no difference.
12. I can determine how tasks can be performed.
13. I make a difference in the learning that goes on in this class.
14. I have no freedom to choose in this class.
15. I can influence the instructor.
16. I feel appreciated in this class.
17. The tasks required of me in this class are personally meaningful.
18. I look forward to going to this class.
19. This class exciting.
20. This class is boring.
21. This class is interesting.
22. The tasks required of me in this class are valuable to me.
23. The information in this class is useful.
24. This course will help me achieve my future goals.
25. The tasks required in this course are a waste of my time.
26. This class is not important to me.
27. I feel confident that I can adequately perform my duties.
28. I feel intimidated by what is required of me in this class.
29. I possess the necessary skills to perform successfully in class.
30. I feel unable to do the work in this class.
31. I believe that I am capable of achieving my goals in this class.
32. I have faith in my ability to do well in this class.
33. I have the qualifications to succeed in this class.

34. I lack confidence in my ability to perform the tasks in this class.
35. I feel very competent in this class.

IV. For the following statements, indicate the frequency with which you perform the following behaviors from 1-Never to 7-Always.

1. I discuss course content with other students.
2. I explain course content to other students.
3. I see the connections between the course content and my career goals.
4. I review the course content.
5. I compare the information from this class with other things I have learned.
6. I feel I have learned a lot in this class.
7. I like to talk about what I'm doing in this class with friends and family.
8. I think about the course content outside of class.

V. Indicate how strongly you agree with each of the following statements regarding your time as a **college** student. (1-strongly disagree to 7-strongly agree)

1. My involvement in co-curricular clubs and/or activities is an important part of who I am as a student.
2. My dedication to my studies in an important part of who I am as a student.
3. My personal beliefs are not important part of who I am as a student.
4. My interactions with other students impact how I see myself as a student.
5. The messages that I receive from my teachers impact how I see myself as a student.
6. Getting professional experience while I am in college does not impact how I see myself as a student.
7. Spending time with my friends is an important part of who I am as a student.
8. If I do poorly on a test/assignment, it does not impact how I see myself as a student.
9. My involvement in professional/academic/athletic clubs/activities are an important part of who I am as a student.
10. My political affiliation is an important part of who I am as a student.
11. Being a leader is an important part of who I am as a student.
12. My future plans/career goals are an important part of who I am as a student.
13. My relationships with my friends are an important part of who I am as a student.
14. Failing a class would not impact how I see myself as a student.
15. Being in charge of campus activities or group projects is an important part of who I am as a student.
16. My relationships with my teachers impact how I see myself as a student.
17. My culture/ethnic heritage is an important part of who I am as a student.
18. My interactions with other students is not important to who I am as a student.
19. My grades impact how I see myself as a student.
20. My community involvement and volunteer experience is an important part of who I am as a student.
21. My interactions with my teachers impact how I see myself as a student.
22. Leadership is not an important part of who I am as a student.
23. My involvement in internships/work impacts how I see myself as a student.
24. Spending time with my friends is not an important part of who I am as a student.
25. What my teachers say to me has no impact on how I see myself as a student.

26. Serving as an officer in campus organizations or captain of my team is an important part of how I see myself as a student.
27. My professional plans are not an important part of who I am as a student.
28. The messages I receive from my friends do not impact how I see myself as a student.
29. My campus involvement has no impact on how I see myself as a student.
30. My religion is an important part of who I am as a student.
31. My academic success is an important part of who I am as a student.
32. Interactions with my friends impact how I see myself as a student.
33. My culture/ethnic heritage has no impact on how I see myself as a student.
34. Being a leader has no impact on how I see myself as a student.
35. The relationships I have with my teachers do not impact how I see myself as a student.

VI. How often do you do the following in a typical 7-day week? (1-None to 5-Very frequently)

1. Prepare for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities.)
2. Participate in co-curricular activities (organizations, campus publications, student government, sorority or fraternity, etc.)
3. Participate in intercollegiate or intermural sports
4. Working for pay
5. Do community service or volunteer work
6. Relax and socialize (time with friends, video games, TV or videos, etc.)
7. Keep up with friends online
8. Attending religious services
9. Attending cultural events
10. Attending events that address important social, economic, and political issues
11. Attending campus activities and events
12. Attending parties and other social events
13. Communicating with faculty in class
14. Communicating with faculty outside of class about nonacademic topics
15. Talk about career plans with a teacher
16. Discuss your academic performance with a teacher
17. Discuss course ideas, concepts, or topics with a teacher outside of class
18. Attempt to have a course assignment or overall course grade raised

VII. Identify the initial of the teacher of the class you had most recently before completing this survey.

A. In what college does this teacher teach?
1.Agricultural Sciences and Natural Resources
2.Architecture and Design
3. Arts and Sciences
4. College of Business
5. Communication and Information
6. Education, Health, and Human Sciences
7. Engineering

8. Nursing
9. Social Work
Other: _____

B. What kind of class is it?
1. In my major
2. In my minor
3. A general education requirement
4. An elective
5. A requirement for my major outside of the department

VIII. Thinking specifically about the teacher whose initials appear above, indicate how you personally would be impacted if the above teacher said this to you. (1-Very negatively to 7-Very positively, with 0 as person would never say)

1. What's done is done; all you can do is move forward.
2. You're capable of more than you think you are.
3. You did not follow the guidelines of the assignment.
4. We are a team.
5. A bad grade can be used as a motivational tool.
6. I just want to see you striving to perform better.
7. You will be successful.
8. I can tell you put forth a lot of effort.
9. Always remember who you are.
10. Your education is what you make out of it.
11. Don't stress over grades.
12. You raised some interesting questions.
13. In your next draft, try to focus on developing more convincing arguments.
14. Be yourself.
15. Your paper/presentation needs to be better organized.
16. You have a very original approach to the assignment.
17. You need to reevaluate your priorities.
18. You get what you put in.
19. The only limits to your own achievements are the ones you put of yourself.
20. You seem bored in class.
21. You are a hard worker.
22. I don't think this is the right major for you.
23. You seem to have clear goals for yourself.
24. You have improved tremendously.
25. The smartest do not always have the most success; it's the people who want it the most.
26. You can do whatever you put your mind to.
27. Just remember what you are in school for.
28. This is interesting! Keep up the good work.
29. Your arguments are convincing.
30. You seem preoccupied with your social life.
31. You can be whatever you want to be.

32. You've got the rest of your life to be wild and crazy.
33. It is important that you attend classes.
34. You are a good student.
35. Your paper/presentation did not make sense.
36. You are lazy.
37. Believe in yourself.
38. These ideas show keen insight into the problem.
39. You seem to be having problems with the assignment.
40. You are responsible for your own learning.
41. You do not have the ability to succeed in this class.
42. Spend more time studying than drinking.
43. Quit making excuses.
44. You are a failure.
45. Please proofread! Your grammar and spelling are poor.
46. Nowadays you have to go to graduate school to get a great job.
47. You seem to have no idea what you are doing.
48. You need to work on your time management.
49. You will never make it as a college student.
50. I believe in you.

IX. Demographics

1. Identify the college that best describes your current program of study:

    a. Agricultural Sciences and Natural Resources
       Architecture and Design
    b. Arts and Sciences
    c. College of Business
    d. Communication and Information
    e. Education, Health, and Human Sciences
    f. Engineering
    g. Nursing
    h. Social Work
    i. Other: _____

2. How many times have you changed your major since arriving at college?

3. What year in school are you?

    a. First year
    b. Sophomore
    c. Junior
    d. Senior

4. What is your biological sex?

a. Male
b. Female

5. What is your age? _____

Appendix E

Correlation Matrix for the Faculty Verbal Messages Items

	Disconfirming
Confirming	.034

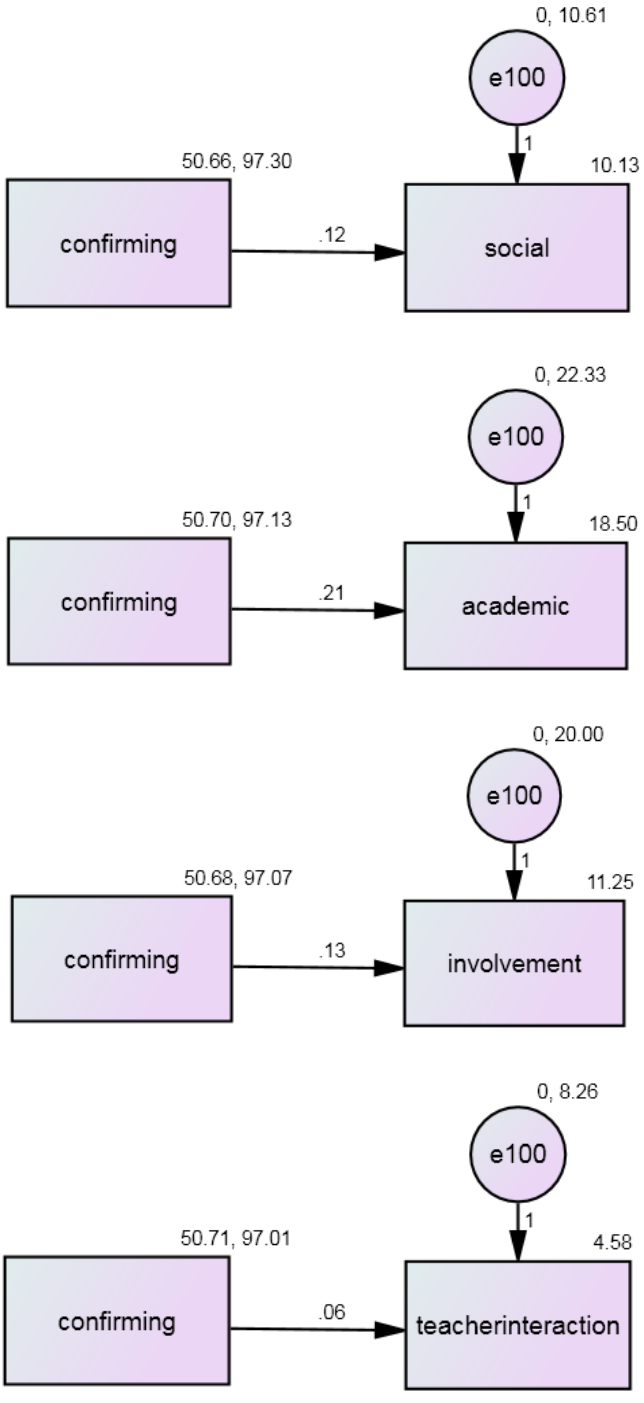
Appendix F

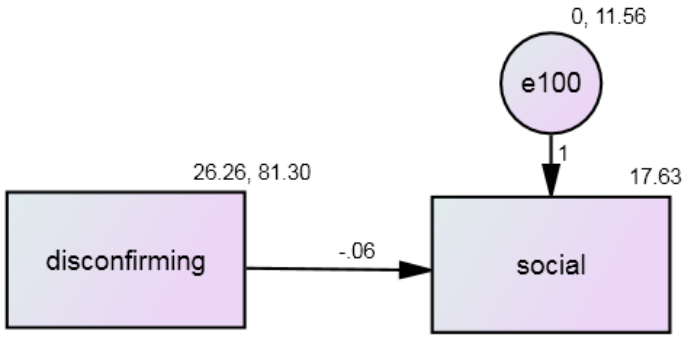
Correlation Matrix for College Student Identities Items

	Academic Success	Social	Involvement	Mean	Standard Deviation
Academic Success				30.42	4.83
Social	.375**			16.06	3.70
Involvement	.343**	.448**		18.40	5.36
Teacher Interaction	-.028	.026	.251**	12.52	4.30

Appendix G

Model A One Path Testing

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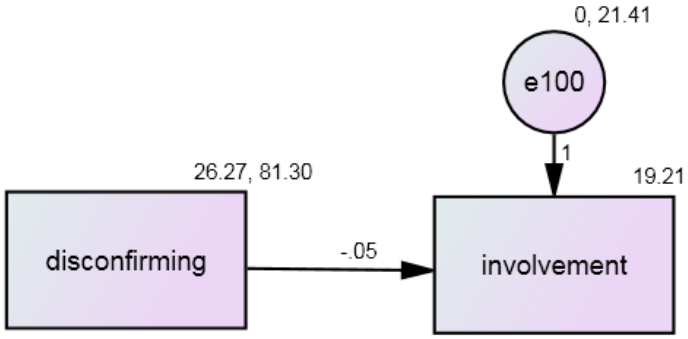
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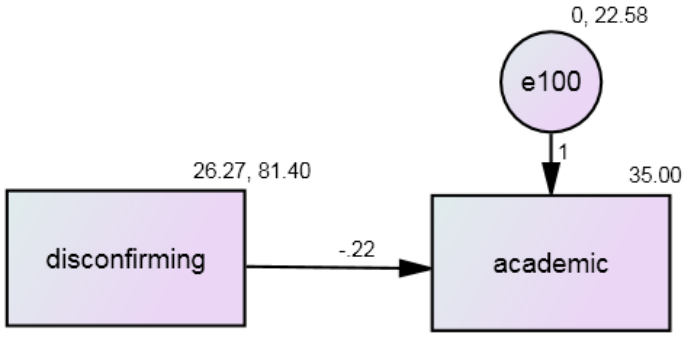
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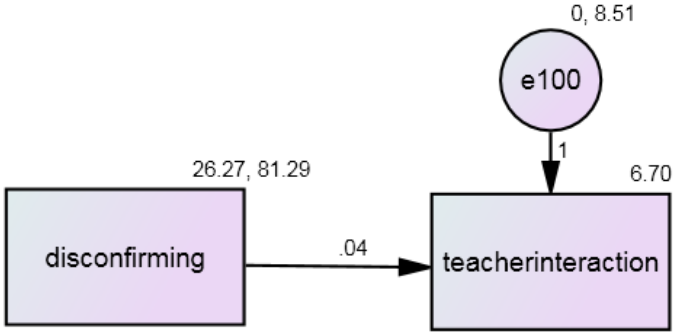
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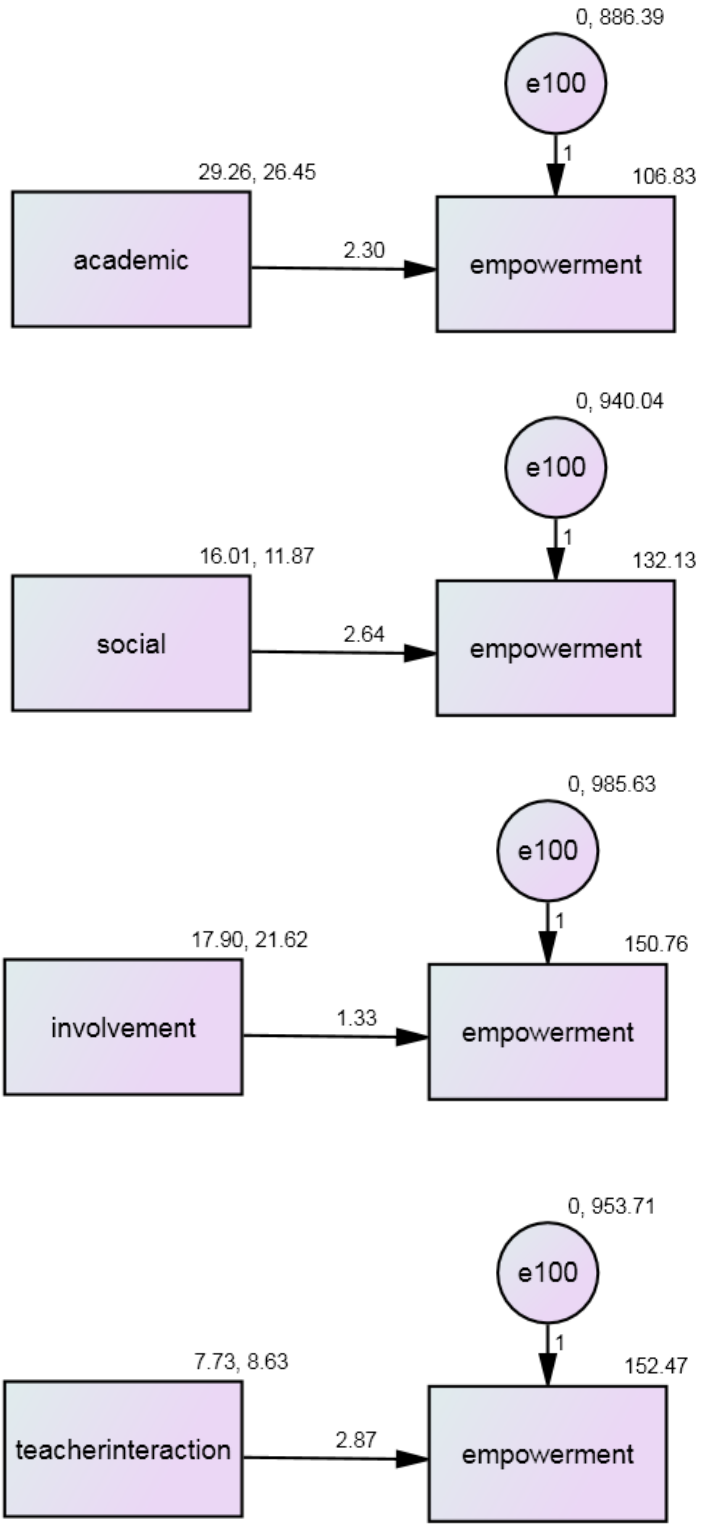
1
26.27, 81.29
6.70
disconfirming
.04
teacherinteraction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106.83
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e100
1
16.01, 11.87
132.13
social
2.64
empowerment
0, 985.63
e100
1
17.90, 21.62
150.76
involvement
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empowerment
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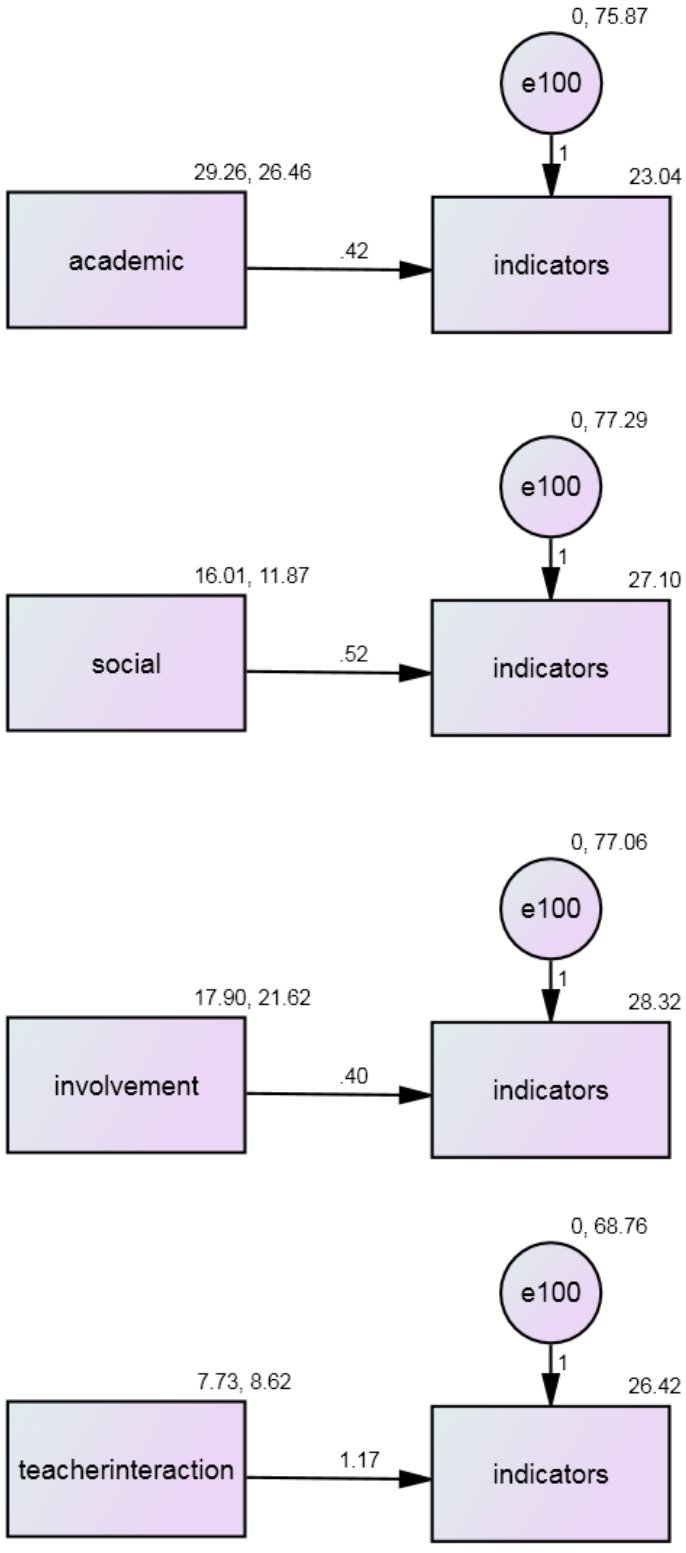
152.47
teacherinteraction
2.87
empowerment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23.04
academic
.42
indicators
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e100
1
16.01, 11.87
27.10
social
.52
indicators
0, 77.06
e100
1
17.90, 21.62
28.32
involvement
.40
indicators
0, 68.76
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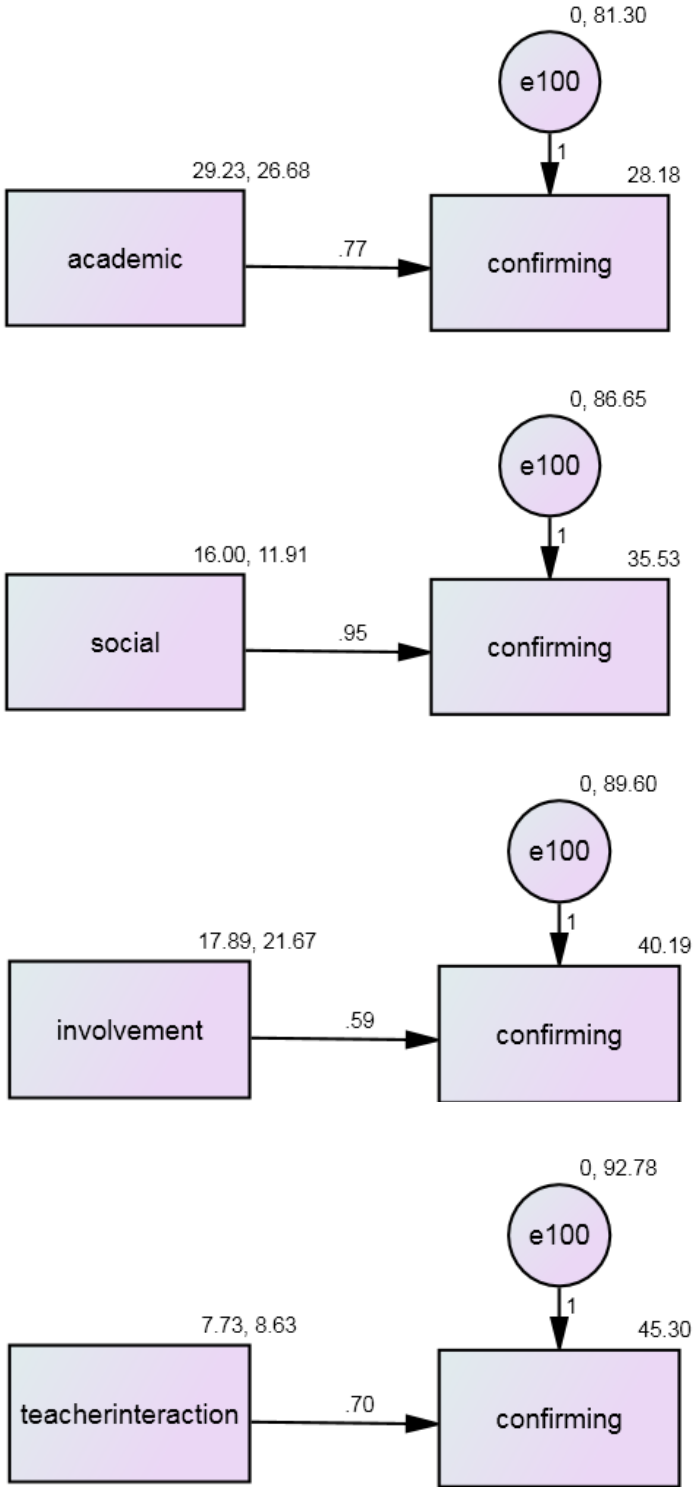
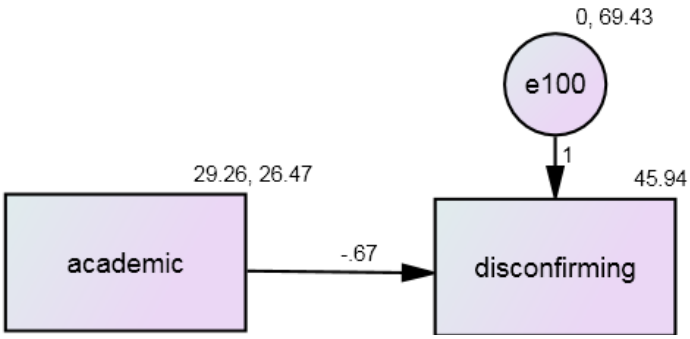
1
7.73, 8.62
26.42
teacherinteraction
1.17
indicators

Appendix H

Model B One Path Testing

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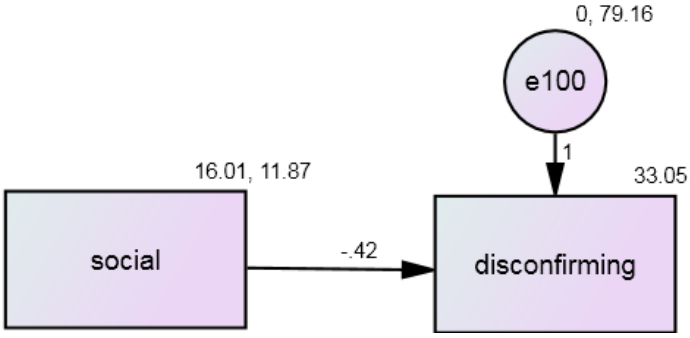
45.94
academic
-.67
disconfirming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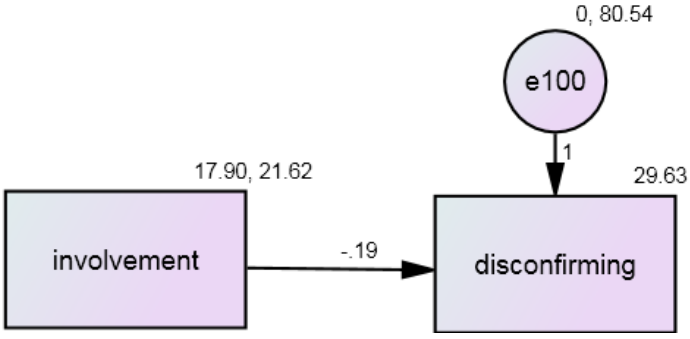
33.05
social
-.42
disconfirming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29.63
involvement
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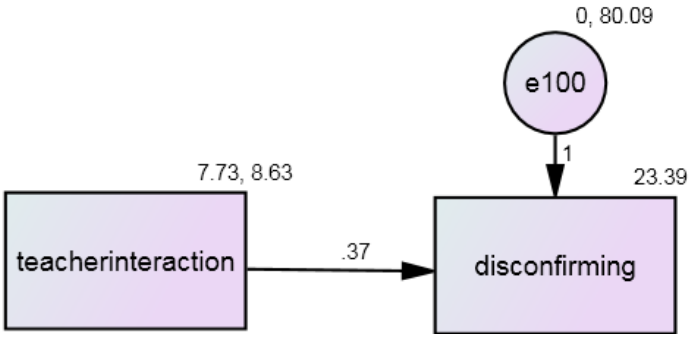
disconfirming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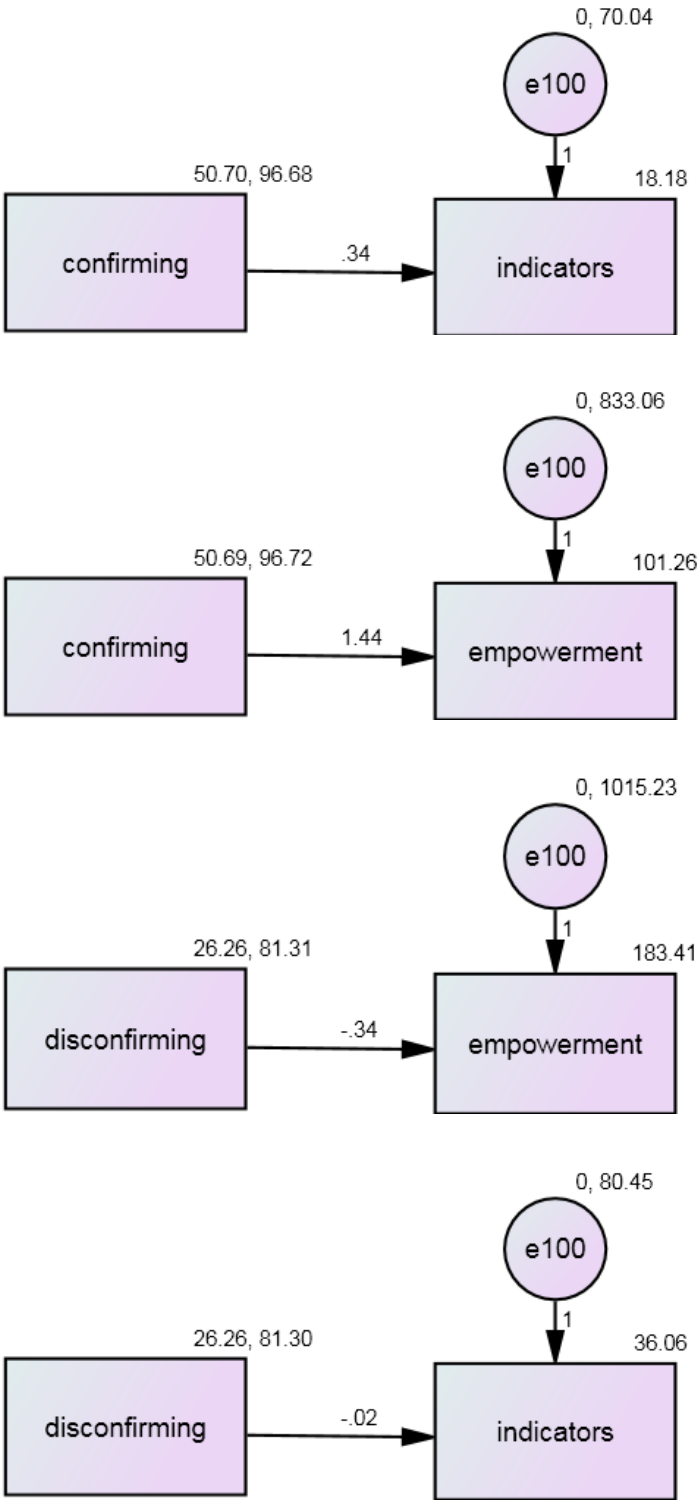
23.39
teacherinteraction
.37
disconfirming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18.18
confirming
.34
indicators
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e100
1
50.69, 96.72
101.26
confirming
1.44
empowerment
0, 1015.23
e100
1
26.26, 81.31
183.41
disconfirming
-.34
empowerment
0, 80.45
e100
1
26.26, 81.30
36.06
disconfirming
-.02
indicators

Vita

Michelle Epstein Garland is an instructional communication scholar with research interests that are interdisciplinary in nature. Grounded in higher education contexts, Michelle's research interests include student-teacher communication, college student identity, pedagogical practices, and assessment and evaluation of courses and programs. Her primary interests are faculty messages, student identities, and learning outcomes. In 2003, Michelle earned her Bachelors of Arts in Communication at College of Charleston in Charleston, South Carolina. She earned her Masters of Science (2006) and Doctor of Philosophy (2015) in Communication and Information with a concentration in Communication Studies at the University of Tennessee in Knoxville, Tennessee. While working toward her degrees, she worked as a graduate assistant in the Office of Institutional Research and Assessment and as a Graduate Teaching Associate/Lecturer for the School of Communication Studies.